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Health
Building Note 36
Volume 1

Health Building Note 36

Local healthcare facilities

NHS Estates
An Executive Agency of the Department of Health

Health Building Note 36

Local healthcare facilities

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An Executive Agency of the Department of Health

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About this publication

The Health Building Note (HBN) series is intended to give advice on the briefing and design implications of Departmental policy.

These Notes are prepared in consultation with representatives of the National Health Service and appropriate professional bodies.

Health Building Notes are aimed at multidisciplinary teams engaged in:

- designing new buildings;
- adapting or extending existing buildings.

Throughout the series, particular attention is paid to the relationship between the design of a given department and its subsequent management. Since this equation will have important implications for capital and running costs, alternative solutions are sometimes proposed.

The intention is to give the reader informed guidance on which to base design decisions.

Health Building Note 36

HBN 36 focuses on the accommodation requirements of primary healthcare centres and local healthcare resource centres in the community. It describes:

a. a primary healthcare centre with accommodation for general medical practitioners and community health staff;

b. a local healthcare resource centre with accommodation for a range of community health services;

c. the enhancement of a primary healthcare centre by the addition of selected functional parts from those used to assemble a local healthcare resource centre.

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1.0 Scope of Health Building Note 36

Introduction

1.1 Health Building Note (HBN) 36 provides guidance for the planning and design of primary healthcare centres and local healthcare resource centres in the community. It also updates and supplements guidance for the planning and design of general medical practice premises provided by HBN 46 – 'General medical practice premises for the provision of primary healthcare services'.

1.2 The range of primary and community healthcare services considered by this HBN significantly exceeds the scope of services traditionally accommodated in general medical practice premises, health centres and health clinics by taking account of recently promulgated legislation, research and policy developments, in particular the National Health Service (NHS) reforms (see paragraphs 2.2 to 2.5).

1.3 In the upgrading of existing – or provision of new – accommodation for primary and community healthcare services, it is important to actively involve staff in working closely with the architect. The staff teams consist of doctors, nurses and therapists with current experience in the provision of primary and community healthcare services. The staff need to be involved from the initial stages of planning and design and should be encouraged to read 'Environments for quality care: Health buildings in the community' (Estatecode) and other quality initiative publications.

1.4 This HBN reflects latest thinking on the planning and design of accommodation for primary and community healthcare services. Care has been taken to ensure that the guidance and recommendations for the accommodation described in the HBN are as economical and as flexible as possible without detriment to the clinical standards required for the provision of high quality services.

1.5 References are listed following the Appendices near the end of this HBN. In the text, documents are mainly referred to by their title only; full details about documents are included in the References. References to equivalent documents for Scotland and Wales are included as appropriate.

Definitions of service provision

1.6 Primary healthcare services comprise the services provided by general medical practitioners (GPs), dentists, retail pharmacists and opticians, and are funded by the General Medical Services budget.

1.7 Hospital and community healthcare services comprise acute hospitals, community hospitals and long-stay hospitals. The services provided in hospitals are sometimes referred to as secondary care services. Community healthcare services work in conjunction with primary healthcare services. Community healthcare services include the work of staff such as district nurses, health visitors, chiropodists and other staff working outside hospitals, and are funded by the Hospital and Community Health Services budget (or, in Northern Ireland, by the HPSS Management Executive).

1.8 Purchasing of primary healthcare services, and hospital and community healthcare services, has been the responsibility of Family Health Services Authorities (FHSAs) and District Health Authorities (DHAs) respectively (or, in Northern Ireland, the HPSS Management Executive). Joint purchasing has been facilitated by the NHS and Community Care Act, 1990.

1.9 Social care services are those services that are the responsibility of local authorities (in Northern Ireland, the HPSS Management Executive). These services include the work of staff such as social workers and home helps, as well as residential care for people who need social support, for example the frail elderly.

Range of provision

Inclusions

1.10 This HBN describes:

a. a primary healthcare centre with accommodation for:

   (i) general medical practitioners, including facilities for medical and surgical investigations and treatment;

   (ii) community healthcare staff, for example, district nurses, community midwives and health visitors;

b. a local healthcare resource centre with accommodation for a range of community healthcare services in support of, and for shared use by, more than one general medical practice. The content of a centre is for local determination: this HBN identifies a core centre with four functional parts and 12 other functional parts from which a larger centre can be assembled (the concept of "reference health

centres", explored in the World Health Organisation's report 'The Role of Health Centres in the Development of Urban Health Systems', is useful in this context);

c. the enhancement of a primary healthcare centre (paragraph 1.10a) by the addition of selected functional parts from those used to assemble a local healthcare resource centre (paragraph 1.10b).

Exclusions

1.11 This HBN does not include guidance in respect of overnight stay facilities for patients.

Capital Investment Manual

1.12 The Capital Investment Manual (England and Wales; in Scotland, see the 'Health Building Procurement in Scotland' guidance) contains the NHS Executive's procedural framework governing the inception, planning, processing and control of individual health building schemes. There are various mandatory requirements within this overall process but the way these tasks are carried out is mainly for NHS Trusts and DHAs (for directly managed units), as appropriate, to determine. Approval from the NHS Executive for business cases will depend on how they intend to carry out the mandatory tasks. The Manual gives guidance on the technical considerations of the full capital appraisal process and also provides a framework for establishing management arrangements to ensure that the benefits of every investment are identified, realised and evaluated. It emphasises three key points:

a. each individual scheme must be supported by a sound business case. A business case must convincingly demonstrate that the investment is economically sound (through an option appraisal) and financially viable (affordable to the Trust and its purchasers);

b. an exploration of private finance alternatives should be viewed as a standard option whenever a capital scheme is being considered. Once the Outline Business Case has been approved, the preferred option should be compared to potential private finance alternatives. Approval to the Full Business Case will not be given unless there is a clear demonstration that private finance alternatives have been adequately tested;

c. the delivery of a major capital project is a difficult and complex task. Nevertheless, failure to deliver on time and to cost diverts resources from direct patient care. The establishment of an appropriate project organisation is essential to ensure that projects are delivered within agreed budgets and timescales.

Cost allowances

1.13 The Departmental Cost Allowances associated with this HBN are promulgated in 'Quarterly Briefing' (issued separately under cover of an Estate Policy Letter) on behalf of the NHS Executive.

Equipment

1.14 Equipment is categorised into four groups, as follows:

a. **Group 1:** items (including engineering terminal outlets) supplied and fixed within the terms of the building contract;

b. **Group 2:** items which have space and/or building construction and/or engineering service requirements and are fixed within the terms of the building contract but supplied under arrangements separate from the building contract;

c. **Group 3:** as Group 2, but supplied and fixed (or placed in position) under arrangements separate from the building contract;

d. **Group 4:** items supplied under arrangements separate from the building contract, possibly with storage implications but otherwise having no effect on space or engineering service requirements.

1.15 Group 1 items are provided for in the Departmental Cost Allowance associated with this Note. The Department of Health Equipment Cost Allowance Guide (ECAG) specifies a sum of money for the functional unit for Groups 2 and 3; the ECAG does not cover Group 4.

Statement of fees and allowances

1.16 Resources are allocated to GPs working for the NHS, including reimbursement of expenses on practice accommodation, under the Rent and Rates Scheme rules which are laid down in the 'Statement of Fees and Allowances' (also known as the SFA or "Red Book") and administered by the FHSA.

1.17 In addition, from 1 April 1995, GPs who have a lease in health centres will also be eligible for reimbursement of rent and rates by FHSAs up to the limit of the current market rent set by the District Valuer.

1.18 The Red Book also sets out the traditional funding mechanism for improving existing accommodation (via the Improvement Grant Scheme), and the mechanism which enables doctors willing to invest in new purpose-built surgery premises to receive a "rent" to reimburse them for financing charges (known as the Cost Rent Scheme). These methods will continue to be used, in part, in the funding of local resource centres; they are described in detail in the Red Book.

Health Building Notes 1, 2 and 45

1.19 HBNs 1 and 2 are an introduction to the planning, design and construction of health buildings. HBN 45 deals with external works to health buildings. Much of the information included in these HBNs will be relevant to project teams planning primary healthcare centres and local healthcare resource centres, even though their subject matter is mainly hospitals.

Works Guidance Index

1.20 This HBN contains guidance which is current at the time of publication. Specific issues, such as arrangements for dealing with fire, security, energy conservation, etc, are covered by other published guidance which must be taken into account. It is recommended that project teams check the current edition of the Works Guidance Index and keep in mind the possibility of changes occurring after its publication.

2.0 General service considerations

Introduction

2.1 This chapter considers service issues related to the provision of primary healthcare centres and local healthcare resource centres, including the need for units to provide facilities for medical investigations and treatment; the size of a unit; and relationships with both the private sector and whole hospital services.

The development of health and social care in the community

2.2 The purpose of the NHS reforms, based on the white paper 'Working for Patients' and the NHS and Community Care Act 1990, is to increase the efficiency with which resources are used and to make services more responsive to patients and the public. The reforms are also seeking to strengthen primary healthcare services to enable GPs and other family practitioners to take on an enhanced role. The changes in this area stem from the white paper, 'Promoting Better Health', which was published in 1987.

2.3 The NHS reforms have introduced an internal market into the provision of healthcare based on a separation of the roles of purchasers and providers. District Health Authorities (DHAs), Family Health Services Authorities (FHSAs) and GP fundholders purchase healthcare services for local people. NHS trusts and directly managed units, as well as GPs – both fundholding and non-fundholding – provide primary healthcare services.

2.4 A key change resulting from the separation of purchaser and provider roles is that GPs and district health authorities work together much more closely. As a consequence, there has been a shift of service provision towards primary healthcare. Examples include:

- the development of protocols by GPs and hospital consultants for the treatment of conditions such as asthma and diabetes. One of the purposes of these protocols is to give GPs an enhanced role in the delivery of services with appropriate specialist support;
- minor surgery. The new contract for GPs introduced in 1990 provided financial incentives to encourage GPs to do more work of this nature. The new contract has been reinforced by the GP fundholding scheme and also by the interest shown by some district health authorities in allocating part of their budget to GPs to do more of the work traditionally undertaken by the hospital consultant;
- the change in the relationship between GPs and hospital consultants. With the overall increase in demand, advances in medical technology and the recognition of the holistic nature of healthcare, the extent of the interface and the sharing of care between GPs and hospital consultants has increased. One manifestation of this has been consultants in some districts holding their out-patient clinics in GPs' surgeries rather than in hospitals;
- the enhanced role of the primary healthcare team. Survey evidence shows that GPs are keen to offer a wider range of services such as physiotherapy and dietetics.

2.5 The Government is seeking to improve services through the policies enabled by the NHS and Community Care Act 1990, one aim of which is to shift the provision of services to the support of people in their own homes. Primary and community healthcare services need to respond to this change in the pattern of care.

Trends in the delivery of primary and community healthcare services

2.6 The delivery of primary and community healthcare services is influenced not only by Government initiatives but also by other trends and developments, as noted below.

Transfer from secondary to primary and community healthcare

2.7 Increasing numbers of elderly people, the increasing potential for medical intervention and the concurrent growth in public expectations for medical treatment will together lead to increased healthcare costs.

2.8 Medical and technological advances, combined with organisational change, have made it possible to transfer some healthcare services traditionally located in specialised and expensive hospital accommodation into the areas of home care and primary and community healthcare. As well as being more convenient for patients, this may also reduce certain elements of cost. Careful assessment is required to ensure that the services will be safe and clinically acceptable in their new environment and that the relocation will be cost-effective. Transfer of out-patient, day case and in-patient services may be considered: transfer of in-patient services may either be to obviate the need for admission to hospital or to reduce the length of stay in hospital.

New models for healthcare delivery

2.9 Radical proposals have been made relating to the delivery of healthcare services, for example in 'Towards a Primary Care-led NHS'. With regard to primary healthcare services, the National Association of Health Authorities and Trusts (NAHAT), in 'Reinventing healthcare towards a new model', 1993, states that:

> *"There is likely to be a continuing blurring of the boundaries between services, with growing numbers of specialists working flexibly between hospital and other settings. In future, we may expect to see some specialties that have historically been hospital based becoming based in primary care. In parallel with this, increasing numbers of GPs and other health professionals are likely to develop special interests which they will use in both hospital and primary/community settings.*
>
> *"Primary care teams seem likely to be involved in a widening range of activities, ... These would involve specific clinical activities together with support programmes of a health and social nature. The programmes would be locally based and could utilise new types of primary/community facilities."*

2.10 It is not within the terms of reference of this HBN to predict the future of primary and community healthcare services. As previously stated, however, the HBN reflects latest thinking on the planning and design of accommodation for primary and community healthcare services – and it is hoped that primary healthcare centres and local healthcare resource centres provided in accordance with this guidance can be used flexibly and can accommodate future needs for change and growth.

The extended role of nurses

2.11 Current and developing education and training programmes enable nurses involved in delivering primary and community healthcare services to perform an extended role and carry out a wider and increasing range of work. Part of the 'Executive summary' of 'New world, new opportunities: nursing in primary healthcare' states:

> *"The NHS reforms, imminent implementation of* Caring for People, *the importance of disease prevention and health promotion as reflected in* The Health of the Nation, *and advances in medical and nursing care are all contributing to the shift of emphasis of healthcare from acute hospitals to services in the community.*
>
> *"Primary healthcare nurses have many of the skills needed to underpin the changes. Moreover, the changes will increase the opportunities to expand their skills, not only in direct patient and client care but in health needs assessment, health promotion, treatment protocols, care management, and the provision of a greater range of rehabilitative, palliative and specialist services. There will be more scope, too, for enhanced collaboration with other agencies and professionals; opportunities to meet more fully the needs of people who, for various reasons, are not registered with a GP; and opportunities to extend the influence of primary healthcare nursing in public health."*

Information management and technology

2.12 Information management and technology (IM&T) is fundamental to the successful operation of modern primary healthcare centres and local healthcare resource centres. The system selected should offer a wide range of facilities, and be consistent with local hospital and NHS IM&T strategies which may be obtained from the Publishing Department, DSS Distribution Centre, Manchester Road, Heywood, Lancashire, OL10 2PZ. A national overview of the trend towards voice and data communication networking systems is contained in 'A Strategy for NHS-wide networking' which may be obtained from the NHS Executive. More detailed guidance on local area networks (LANs) is contained in the NHS IT Standards Handbook Volume 2 which may also be obtained from the NHS Executive.

2.13 The choice of IM&T systems, as well as matters such as the location of computer terminals, which functions to include on the system, and the various levels of access to information, should be determined locally. Examples of the data handling needs which would be met by installation of a comprehensive IM&T system include:

- within the centre:
  - (i) maintaining the appointment system;
  - (ii) managing treatment sessions and lists;
  - (iii) copying and integrating data collected on laptop and similar computers by centre staff on home visits;
  - (iv) communicating between team members;
  - (v) providing management information, including clinical audit;
  - (vi) managing materials;
  - (vii) managing statistical information;
  - (viii) storing reference material, including diagnostic information;
- with other centres:
  - (i) making appointments from primary healthcare centres at a local healthcare resource centre and vice versa;

- with hospital departments:
  - (i) accessing waiting list information;
  - (ii) making appointments for out-patient clinics;
  - (iii) transmitting X-rays to, and reports from, the radiology department;
  - (iv) transmitting urgent results from the pathology department;
  - (v) ordering supplies and/or services;
- with patients:
  - (i) confirming appointments;
  - (ii) final checking that patients still plan to attend.

2.14 Project teams should:

a. consider the IM&T needs of a centre at an early stage;

b. review current IM&T developments;

c. check that proposals conform with local hospital IM&T policies;

d. ensure that sufficient space is provided at the design stage to meet the anticipated need for special power supplies, modems, visual display terminals VDTs), printers and associated software, stationery, and conduits for cables;

e. where necessary ensure that a room is provided within the centre to accommodate the IM&T equipment. The space requirements, temperature limits, etc should be obtained from the equipment manufacturer;

f. ensure that VDT screens are sited so that the displayed text is not visible to members of the public (although it may be considered an advantage to be able to turn the screen to enable the patient to check the accuracy of the information entered);

g. ensure that the contents of the VDT screen are legible (see paragraph 6.58);

h. ensure that equipment noise is controlled within acceptable limits and, where necessary, fit acoustic hoods or locate the equipment in a separate room;

j. ensure that adequate provision is made for the security of data and devices.

2.15 Recent developments in the field of IM&T, including multi-media communication, have been recognised in the preparation of this HBN. It is essential, however, that, as stated above, project teams *"review current IM&T developments"* and *"check that proposals conform with local hospital IM&T policies"*. For example, if radiography can be carried out in a local healthcare resource centre and images electronically transmitted to a hospital radiology department to be read and reported on, the local healthcare resource centre may be used routinely for this purpose. Consideration would need to be given, for example, to the impact of an increase in the number of patients attending, the activities of, facilities required in, and the locational relationships of, relevant spaces, and to the provision of engineering services.

Medical technology

2.16 Advances in medical technology continuously change the range of procedures which can be performed effectively and safely outside a hospital setting and in a primary healthcare centre or local healthcare resource centre. Further advances seem inevitable; the implications of such advances for the provision of healthcare facilities, however, are not clear. The increasing range of non-invasive procedures suggests that simpler, less-controlled environments are required, but this may be countered by an increase in more ambitious procedures as a result of the devolution of healthcare services discussed above.

2.17 As for IM&T, recent developments in the field of medical technology have been recognised in the preparation of this HBN, but it is essential that project teams review current developments as part of the project planning and design process.

Private finance

2.18 The private sector is being encouraged to invest in schemes for healthcare premises, to include healthcare premises in their developments and to enter joint venture enterprises with health sector stakeholders. NHS trusts and health authorities are required to investigate private finance alternatives (see paragraph 1.12).

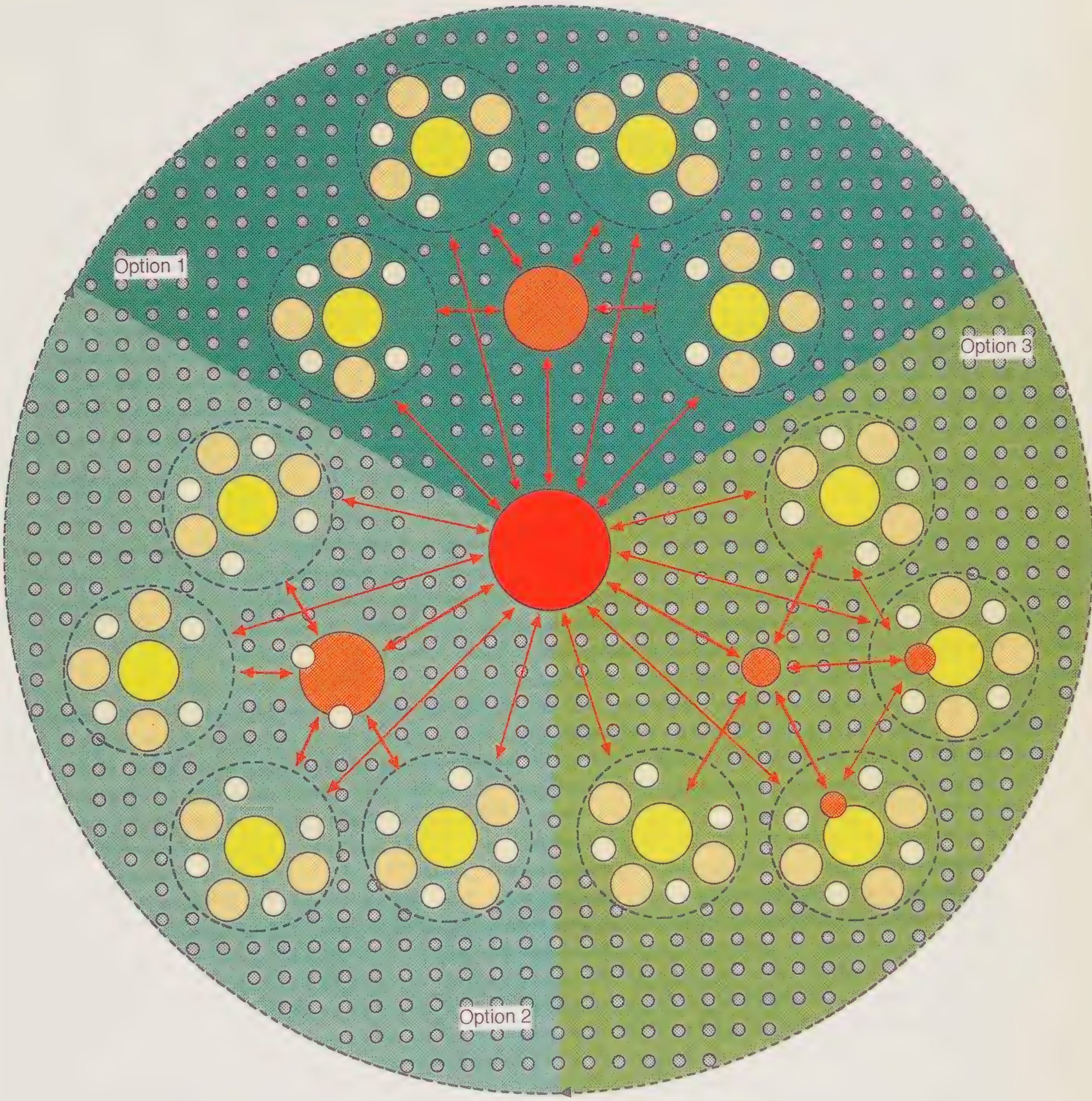
Primary healthcare centre services

2.19 The primary healthcare centre provides permanent accommodation for one or more general medical practices.

2.20 The primary healthcare centre provides a similar function to, and accommodates a similar range of services to, the general medical practice premises described in HBN 46 – 'General medical practice premises' . Figure 1, provides an example model of care by population; this is to be read in conjunction with the primary and local healthcare service/ location example model shown in Figure 2 as "Option 1".

2.21 Additional spaces are included in order to enable recent and projected future service developments to be accommodated. For example, a major treatment room is supported by a recovery room and endoscope storage and cleaning facilities so that a range of medical and surgical investigations and treatments, including endoscopic procedures, can be performed. Further consulting/ examination rooms and offices/office workstations can be added to the basic allowances to facilitate services being further extended.

Figure 1 Example model of care by population



KEY

(≈1) Patient's home

(≈1,700) 1 GP unit

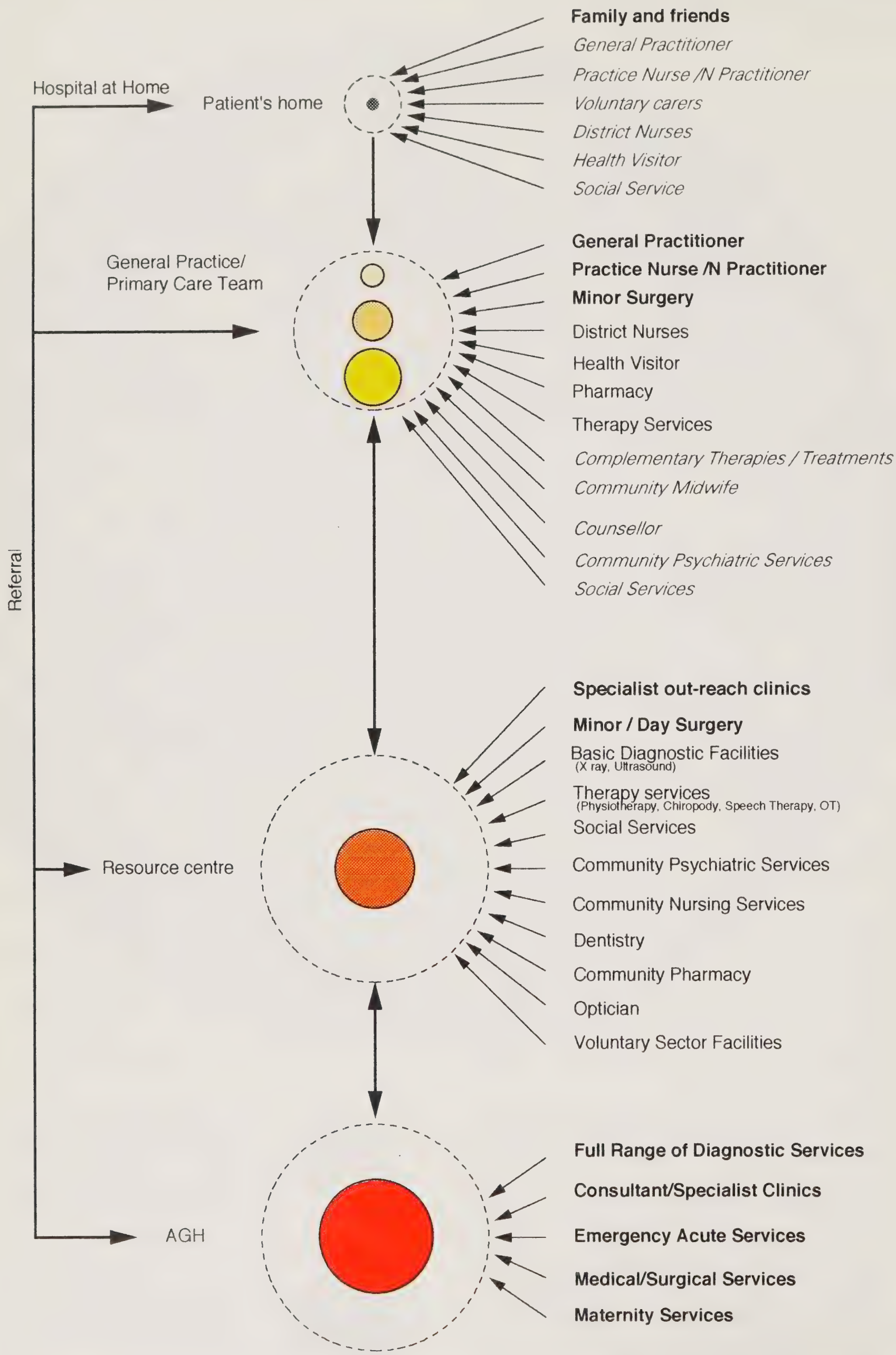
(≈6,000) 3 GP unit plus attached staff

(≈12,000) 6 GP unit plus attached staff

(<100,000) Local Healthcare Resource Centre

(≈250,000) Acute General Hospital

Figure 2 Example model of care by service/location (based on Option 1)



Services shown in bold type indicate that the facility is their base location, standard type indicates that they operate/ are based at the location, italic type indicates that they may operate at the location but are based elsewhere.

2.22 The services provided from a primary healthcare centre will focus on the people registered with the general medical practice(s) accommodated. 'New world, new opportunities' states:

> *"The lodestar for any model of healthcare organisation is whether the best interests of patients and clients are served. In the case of primary healthcare, the most direct way to ensure that they are is for the service to be focused as far as possible on the people registered with each general practice – the practice population. We believe this should be the central plank of all primary healthcare organisation because*
>
> - *the registered list generally covers around 99 per cent of the total population;*
> - *the general practice is understood and accepted by the public;*
> - *teamwork is strengthened;*
> - *the co-ordination of care is made smoother;*
> - *the sharing of records is made easier;*
> - *communication is improved, and;*
> - *the healthcare professionals involved can together help to build up accurate pictures of local health needs."*

Local healthcare resource centre services

2.23 The local healthcare resource centre described in this HBN will be used by more than one general medical practice, but may not provide permanent accommodation for a general medical practice.

2.24 The services provided from a local healthcare resource centre will focus on the people registered with the general medical practices using the centre. Figure 1, which provides an example model of care by population, is to be read in conjunction with the local and primary healthcare service/location example model shown in Figure 2 as "Option 1".

2.25 The local healthcare resource centre provides accommodation for a range of services in support of general medical practices accommodated in primary healthcare centres, including:

- specialist consultation and examination services;
- medical and surgical investigation and treatment, including endoscopy, services;
- diagnostic services, including radiology and pathology;
- chiropody services;
- community psychiatric services;
- social services;
- therapy services, including physiotherapy, occupational therapy, speech therapy and other professions allied to medicine;
- complementary medicines, for example acupuncture, aromatherapy and osteopathy;
- dental services;
- community pharmacy;
- optical services.

2.26 Accommodation in local healthcare resource centres is intended to supplement, not duplicate, accommodation in primary healthcare centres.

Primary healthcare centre (enhanced) services

2.27 Services provided from a primary healthcare centre (paragraph 2.21) can be enhanced to include services which otherwise may be provided from a local healthcare resource centre (paragraph 2.25). The enhanced provision is shown in the example model given as "Option 2" in Figure 3 (which should again be read in conjunction with Figure 1). This HBN has been prepared to facilitate the addition of functional parts of a local healthcare resource centre to a primary healthcare centre (see paragraph 3.21, also Figures 4 and 5.

The case for primary healthcare centres and local healthcare resource centres

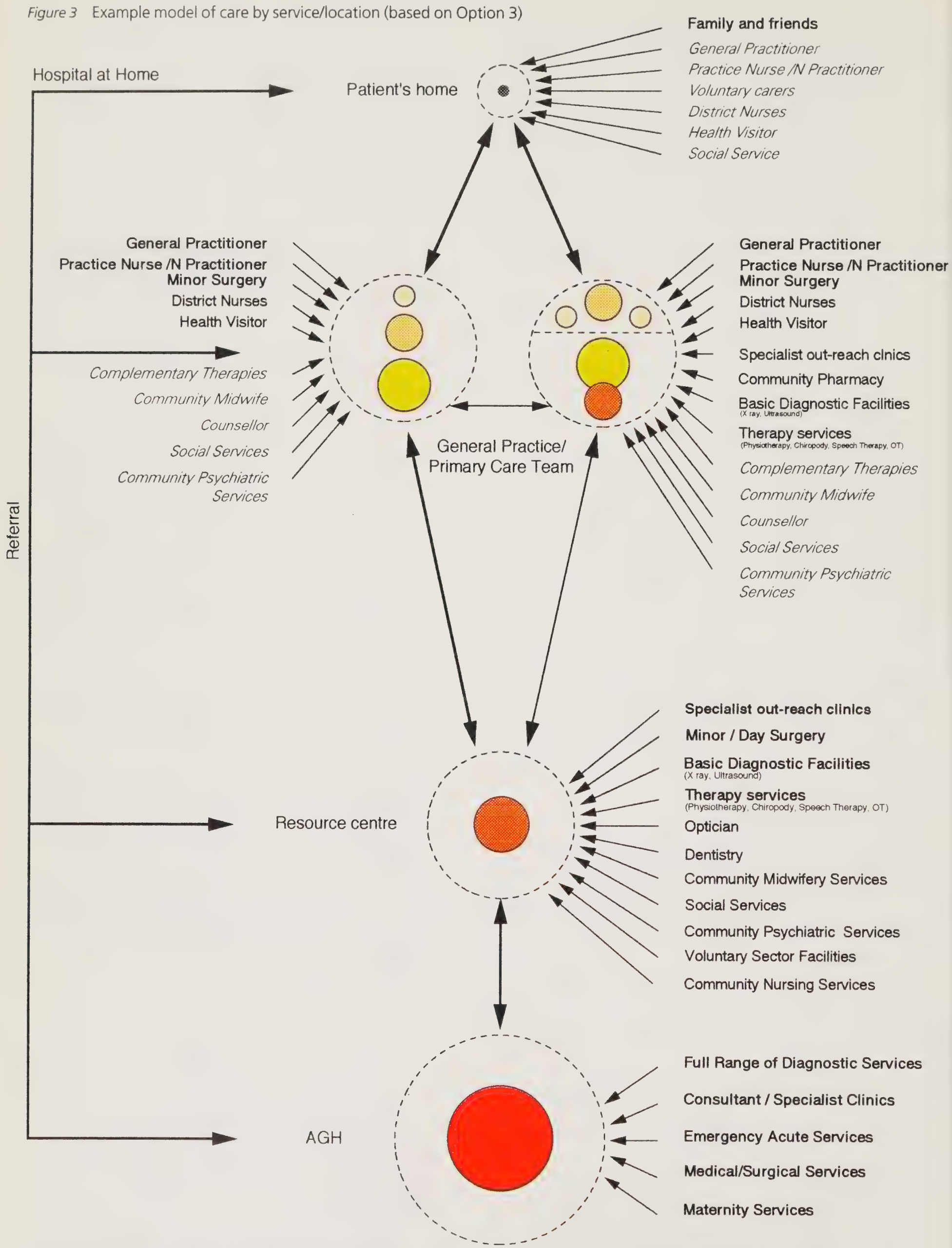
2.28 Specialist outreach clinics – that is, hospital-based consultants holding specialist consultation and examination sessions outside a hospital setting – may be held in primary healthcare centres and local healthcare resource centres.

2.29 Studies made of specialist outreach clinics (see 'The special branch', Health Service Journal, 28 July 94, pp30-31, Vol 104 No 5413) identify the following benefits and problems:

a. for patients:
   - (i) access is easy;
   - (ii) surroundings are familiar;
   - (iii) waiting times are shorter;
   - (iv) a consultant opinion is obtained; but
   - (v) an additional appointment at hospital for further tests may be necessary;

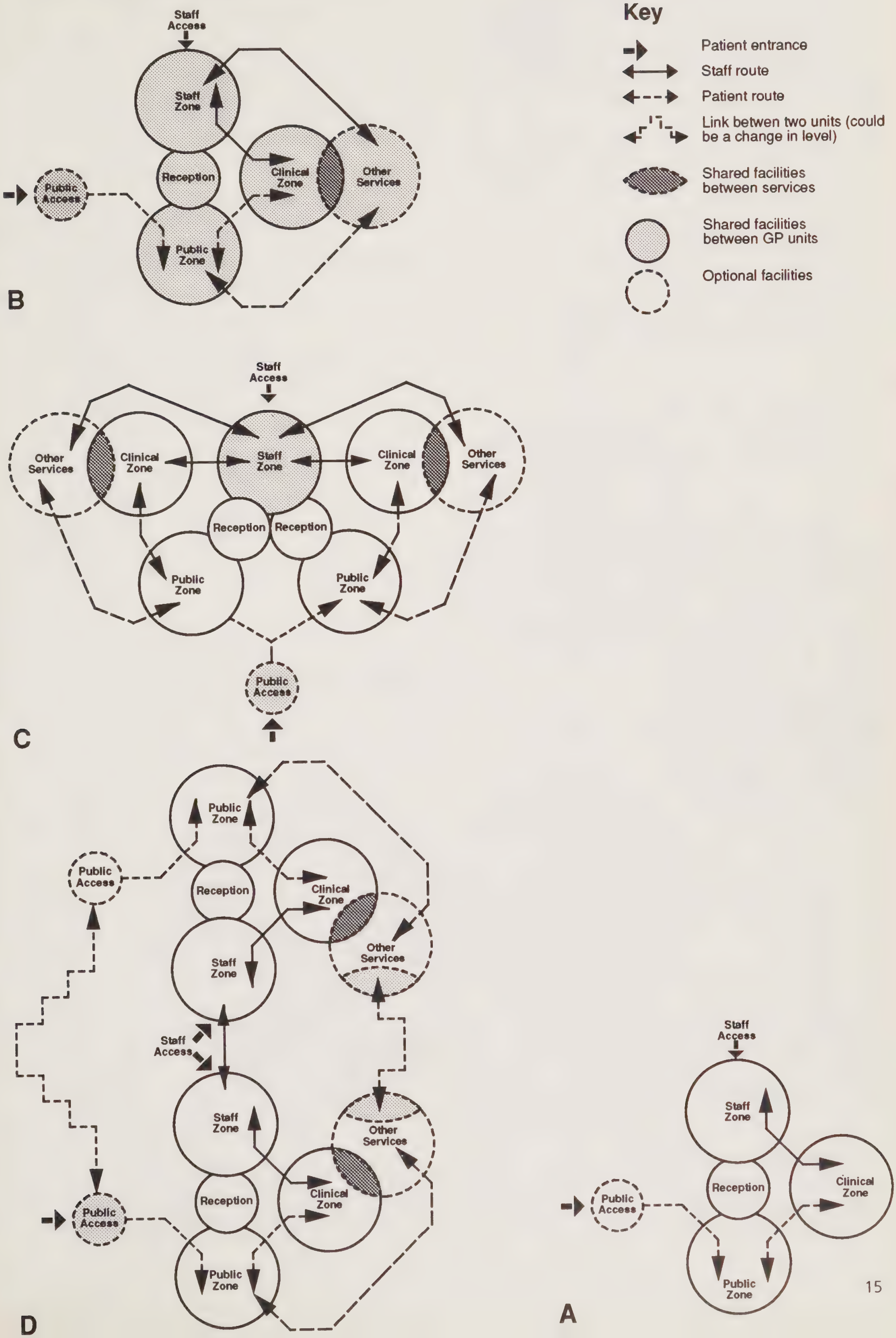
b. for the GPs:
   - (i) communication with the consultant is improved;

Figure 3 Example model of care by service/location (based on Option 3)



Services shown in bold type indicate that the facility is their base location, standard type indicates that they operate/ are based at the location, italic type indicates that they may operate at the location but are based elsewhere.

Figure 4 General medical practice premises



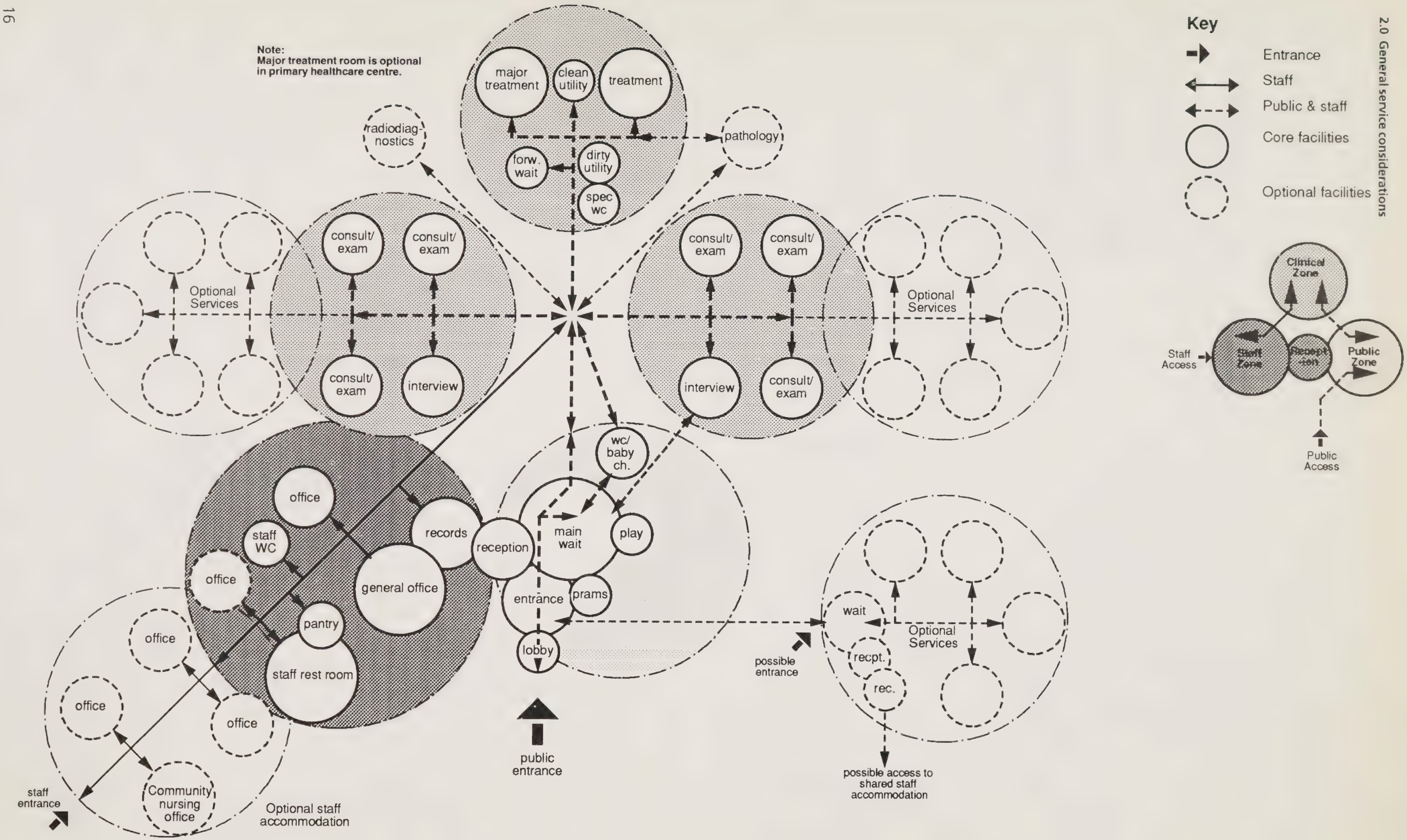


Figure 5 Functional parts/relationships

(ii) there is an opportunity to learn from the consultant;

(iii) waiting times are shorter;

(iv) the level of patient satisfaction is higher; but

(v) accommodation has to be made available;

(vi) there is an additional administrative workload;

c. for specialists:

(i) communication with the general medical practitioner is improved;

(ii) patients and the environment are more relaxed;

(iii) their work is varied; but

(iv) travelling time is involved;

(v) they are absent from the hospital;

(vi) such clinics may be an inefficient use of their time.

2.30 The document 'Primary Care in Focus: Contracting for Substitution – Secondary to Primary Care' (South East Thames Regional Health Authority) identifies hospital services which are to be considered for substitution by primary care services, including:

- minor/day surgery and "work-up" prior to in-patient surgery;
- diagnostic services, including certain endoscopic, radiographic and pathological procedures;
- chronic disease management, including assessment, ongoing treatment and monitoring of a number of conditions;
- caring for people with acute illnesses, including acute infective illnesses (particularly in young and older people), immediate post-operative care and rehabilitation, and the acute phase of stroke care and rehabilitation. 'Primary Care in Focus: Contracting for Substitution – Secondary to Primary Care' indicates that the:

  "Benefits of substitution might include:

  - *improved patient satisfaction due to reduced social dislocation;*
  - *in some cases, improved clinical outcomes;*
  - *opportunities for efficiency improvements due to better use of skills and a reduction in hospital usage;*
  - *better management of 'caring' aspects of chronic degenerative disease."*

2.31 Primary healthcare centres and local healthcare resource centres provide appropriate accommodation to help facilitate this shift from secondary to primary care.

2.32 A single-handed or small general medical practice may enjoy the advantages of better premises and capital and revenue savings accommodated in a primary healthcare centre with (an)other general medical practice(s). On the other hand, the single-handed or small practice may feel a loss of identity in a larger centre.

2.33 General medical practices can share use of accommodation in a local healthcare resource centre which would be uneconomic to provide in a primary healthcare centre.

2.34 A primary healthcare centre could be enhanced by the addition of (a) functional part(s) of a local healthcare resource centre (see paragraph 2.25) when the workload for the service concerned at the primary healthcare centre is sufficient to ensure that the accommodation will not be under-utilised.

Partners in primary healthcare centres and local healthcare resource centres

Project partners

2.35 There are a number of options for the inception, funding, ownership and procurement of primary healthcare centres and local healthcare resource centres. It is probable that viable schemes will be based on a partnership between a number of stakeholders, who may include any combination of those listed below:

- FHSA/DHA;
- local NHS trusts;
- general medical practice(s);
- local authorities;
- other potential lessees, such as pharmacists;
- private sector financiers;
- private sector developers.

2.36 Particular opportunities may occur locally for innovative developments.

Integration with private sector functions

2.37 There are strong arguments for seeking to integrate plans for primary healthcare centres and local healthcare resource centres with plans for private/local authority sector functions. Such an arrangement is most effective when the private/local authority sector activity is well-established and accepted in the local community.

2.38 For example, if the private/local authority sector activity is shopping, an initial advantage is that the development provides an activity focus other than health for

local people. Shoppers, in this case, may be more prepared to "drop in" to optional activities, such as health promotion clinics, at a primary healthcare centre or local healthcare resource centre. The needs of the more frequent users of primary care services – for example, elderly people – must be given careful consideration, to ensure that they have easy access to these services and facilities.

2.39 Involvement of people in healthcare functions – and health promotion in particular – as part of a normal healthy lifestyle may be encouraged even further if a primary healthcare centre or local healthcare resource centre can be organisationally integrated with a social function such as a fitness centre, recreation centre or community centre. Use of appropriate spaces may be shared. As a result, space utilisation will be improved, running costs reduced and a two-way flow of information about activities facilitated.

2.40 It is important that all partners and other agencies involved in a project for the provision of a primary healthcare centre or local healthcare resource centre work together from its inception and are party to any compromises and reconciliations that may need to be made during the planning and design process.

Working with the private sector

2.41 The 'Private Finance Guide' is included in the 'Capital Investment Manual' (England and Wales; for Scotland, see 'Health Building Procurement in Scotland'); further guidance regarding private finance is given therein.

2.42 Involvement of the private sector may have a profound influence on the nature and content of proposals, and will be integral to the conceptual development of a scheme, for a primary healthcare centre or local healthcare resource centre. However, the design team should consider the needs of people with disabilities, and ensure the accessibility of the development for these people.

2.43 A private developer may become involved in the provision of primary healthcare centres or local healthcare resource centres in a number of ways – for example, as project facilitator, owner, manager or administrator.

2.44 Private developers are more likely to be interested in projects which do not have a high specialist content and would have greater opportunities for resale for alternative commercial purposes in the event of the health function no longer being required because of (for example) a shift in the population, or local reorganisation for the delivery of health services, or perhaps due to the failure of an experimental scheme.

2.45 Provision of capital funds for the construction of primary healthcare centres and local healthcare resource centres will vary between projects; contributors may include FHSAs, NHS trusts, DHAs and the private sector.

Approval processes

2.46 Projects being progressed as capital schemes by NHS trusts are subject to the approval processes laid down in the 'Capital Investment Manual' (see paragraph 1.12).

2.47 Projects being progressed by GPs of an FHSA are subject to the approval processes laid down in the 'Statement of Fees and Allowances' (see paragraphs 1.16 to 1.18).

2.48 Projects being progressed jointly by NHS trusts and DHAs, and independent contractors of an FHSA, will need to follow concurrently, as appropriate, the approval processes laid down in the 'Capital Investment Manual' and the 'Statement of Fees and Allowances' respectively.

Primary care development plans

2.49 FHSAs are required to prepare primary care development plans which describe their strategic service planning intentions. Particular aspects of the plans which impinge on the provision of healthcare premises include:

- examination and identification of health service needs by locality, probably determined in conjunction with the DHA;
- assessment of the capacity of existing physical resources (including premises). A systematic record is required of services provided and of all appropriate premises;
- examination and identification of the shortfall in services and physical resources, recognising trends in the delivery of healthcare;
- preparation of plans for the provision of services and physical resources to meet identified needs.

2.50 Primary care development plans may identify a need to provide primary healthcare centres and local healthcare resource centres.

Functional units and functional content

Primary healthcare centre

2.51 The functional unit used in this HBN to express the functional content of the primary healthcare centre is the GP combined consulting/examination room.

Local healthcare resource centre

2.52 The functional units used in this HBN to express the functional content of the 16 functional parts of the local healthcare resource centre are noted below:

a. patient reception spaces – the combined consulting/examination room;

b. office accommodation – the combined consulting/examination room;

c. utility spaces and stores – the combined consulting/examination room;

d. facilities for staff – the peak load of staff;

e. medical and surgical investigation and treatment services – the combined consulting/examination room;

f. radiology services – the radiodiagnostic room;

g. pathology services – the laboratory workstation;

h. chiropody – the surgery;

j. community psychiatric services – the consulting/examination room;

k. social services – the social worker or care manager;

m. physiotherapy services – the patient;

n. occupational therapy services – the patient;

p. speech therapy – the patient;

q. dental services – the surgery;

r. community pharmacy – the pharmacy;

s. optician – the optician.

Sizing a primary healthcare centre

2.53 The functional content of a primary healthcare centre is determined by the number of combined consulting/examination rooms required to accommodate the GPs who work there. The "Schedules of accommodation" in Chapter 7 include an additional consulting/examination room for use by (for example) visiting hospital consultants, district nurses and community midwives. Further consulting/examination rooms (Optional Accommodation and Services – OAS) may be added if justified by workload.

2.54 The "Schedules of accommodation" include one office for community staff with an identified number of office workstations. There is no standard correlation, however, between the number of GPs who work at a primary healthcare centre and the number of community staff based there. Further office workstations (OAS) may be added if justified by workload.

Sizing a local healthcare resource centre

2.55 The functional content of the 16 functional parts of a local healthcare resource centre is determined by the number of functional units required of each functional part. Notes about calculating the number of functional units and other related issues are set out below.

2.56 The functional content for 'Facilities for staff' relates to the maximum number of staff likely to be present in the local healthcare resource centre at the same time.

2.57 Use of principal spaces (that is, spaces with a direct relationship to the functional unit) should be carefully considered. Timetabling is important: spare capacity may be allowed for developments, but spaces should not be significantly under-utilised. In order to satisfy this criterion, consideration may be given to combining appropriate functions – for example, the consultation/examination function of the 'Community psychiatric services' with the consultation/examination function of the 'Medical and surgical investigation and treatment services'.

2.58 It is considered that only in exceptional circumstances would more than one radiodiagnostic room, one laboratory and facilities for one optician be required.

2.59 The functional content for chiropody services is directly related to the number of chiropodists who need to work concurrently: each chiropodist requires a curtained cubicle.

2.60 The functional content for therapy services (excluding 'Other therapies') has not been related to numbers of staff, as the therapists concerned may work with patients either on a one-to-one basis or as a group. The key factor in determining size, therefore, is the maximum number of patients to be treated concurrently.

Functional relationships

2.61 This HBN describes a primary healthcare centre and a local healthcare resource centre. Reference is made below to the functional relationships of the two centres to each other and to other parts of the healthcare system.

2.62 The local healthcare resource centre provides services which are complementary to the primary healthcare centre. Patients from primary healthcare centres will be referred to the local healthcare resource centre for treatment.

2.63 Primary healthcare centres and local healthcare resource centres will both have functional relationships with local hospitals; for example:

- hospital consultants and other staff may attend both types of centre to hold out-patient clinics. Health records held by the hospital may need to be transferred to and from the centre for the clinic session;
- hospitals may provide diagnostic services to the centres (see paragraph 2.15);
- patients may be referred to hospitals for diagnostic tests, for attendance as out-patients and for admission as day patients for procedures which cannot be performed in the centres;

- patients will be referred to hospitals for admission as in-patients;
- hospital departments may provide services to centres – for example, the sterile services department.

A diagrammatic representation of the functional relationships between these healthcare centres and local hospitals is given in Figure 1.

2.64 Primary healthcare centres and local healthcare resource centres will both have functional relationships with NHS trusts and/or the directly managed units responsible for the provision of community health services.

3.0 General functional and design requirements

Introduction

3.1 This chapter provides planning and design guidance for primary healthcare centres and local healthcare resource centres related to the service objectives outlined in Chapter 2. Additional guidance which is common to all health buildings is discussed in Chapter 5.

General design considerations

3.2 Primary healthcare centres and local healthcare resource centres should be planned and designed to provide patients and their escorts with high quality facilities which will be as easy as possible for staff to manage and operate. The layout of these centres should be simple and straightforward: long corridors, awkward corners and changes in level should be avoided.

3.3 The design should help to assure patients that they are receiving a high quality service. To this end, particular attention should be paid to the visual aspects of centres as well as to functional and environmental needs.

3.4 Patients and escorts may be anxious; the building design should help to alleviate patients' stress. Particular care should be taken with the most public spaces, especially waiting areas.

Choosing a site

Site availability

3.5 The Department of the Environment expects local planning authorities to allocate sites in their district/borough plans to meet future healthcare needs. It is therefore important that NHS organisations advise local authorities of their needs covering the ten-year period of the plans and that they should become fully involved in the statutory Local Plan consultation process. These plans have a very important status in connection with acceptable land use and planning applications.

3.6 In situations where a site has not been allocated, a search will need to be put in hand at the earliest opportunity. An approach for help should be made to the local authority planning department as well as to normal market sources.

3.7 If not previously involved, the local planning authority should be approached as soon as an appropriate site has been identified, as there may be constraints on traffic, parking, environmental impact or visual impact.

Access

3.8 The most important factor in selecting sites for primary healthcare centres and local healthcare resource centres is that they must be accessible to the people they serve. Special consideration needs to be given to the suitability of the site for any people with disabilities. Centres should be near the "centre of gravity" of their catchment population and easily accessible by public transport.

Location

3.9 Site selection should take account of:

a. current and prospective town developments;

b. population movements;

c. changes in transport services;

d. the needs of older people, those with disabilities and mothers with young children.

Account may also need to be taken of the location of existing premises of any parties with an interest in a proposed centre.

3.10 It is important that a centre can be positioned on a site so that the entrance is convenient and obvious to the public and rooms which need to be quietest are on the side of the centre which is remote from traffic or other noise. In assessing the relative merits of sites, account should be taken of site conditions or restraints on noise factors which may add to the cost of the project.

3.11 Consideration may also need to be given to the proximity of, and future plans for, local hospitals.

Size and shape

3.12 The size and shape of sites is important. Consideration should be given to:

a. adequacy for proper building design. Requirements in terms of spatial relationships, economy of design and building character can be met more easily if the site is not too long and thin or otherwise constricted;

b. adequacy for parking, including the need for space for large vehicles accommodating mobile services such as minor surgery and radiography, and the requirements of the local planning authority; also the special needs of those with disabilities (see paragraphs 3.29 to 3.33);

c. the need for access routes for patients, staff, deliveries and refuse collection which do not conflict;

d. the building line, set by the local planning authority, which restricts the area of a development;

e. the possible need for future expansion.

Levels

3.13 A single-storey building has functional advantages but a two-storey building will reduce the size of the site required and obviate the need for long lines of horizontal communication. Where a two-storey building is envisaged, the most appropriate use of the upperfloor would be staff accommodation, but only provided that the needs of any staff with disabilities are first considered.

Functional parts

Primary healthcare centres

3.14 The "Schedules of accommodation" in Chapter 7 show the primary healthcare centre as an assembly of the following functional parts:

a. patient reception spaces;

b. consulting, examination and treatment spaces;

c. office accommodation;

d. utility spaces and stores;

e. facilities for staff.

Local healthcare resource centres

3.15 The "Schedules of accommodation" in Chapter 7 show the local healthcare resource centres as an assembly of up to 16 functional parts, as detailed in paragraph 2.52.

Assembly of functional parts

Primary healthcare centres

3.16 The "Schedules of accommodation" show primary healthcare centres with functional contents of three, six and nine GPs.

3.17 Figure 4, represents an assembly of functional parts for four typical general medical practice premises (shown as diagrams A, B, C and D). The primary healthcare centres may accommodate:

a. one practice (diagram A refers);

b. two or more practices, with each practice having its own separate accommodation;

c. two practices, with accommodation integrated and shared to varying degrees. For example, "Patient reception spaces" only may be integrated and shared or, additionally, some "Consulting, examination and treatment spaces" and "Office accommodation", "Utility spaces and stores" and "Facilities for staff" may be integrated and shared (diagrams B and C refer);

d. three or more practices, with accommodation for some practices integrated and shared (as (c)) and accommodation for one or more practices separate (as (b)) (diagram D refers).

Regardless of the number of GP practices using the centre, accommodation will be needed for other members of the primary healthcare team, including community nurses, midwives, health visitors and therapy professionals. The area allowances may be aggregated in centres where spaces are integrated and shared.

Local healthcare resource centres

3.18 "Patient reception spaces", "Office accommodation", "Utility spaces and stores" and "Facilities for staff" are "core" functional parts of a local healthcare resource centre: the "Schedules of accommodation" show three sizes of each. Other functional parts of the appropriate size, as determined locally, should be selected from the "Schedules of accommodation".

3.19 Functional parts of the accommodation in a local healthcare resource centre may be provided separately – that is, as a discrete group of spaces – or may be integrated and shared to varying degrees. The area allowances may be aggregated in centres where spaces are integrated and shared. Figure 5 gives a diagrammatic representation of the functional parts/relationships of a typical local healthcare resource centre.

3.20 General medical practices planning to use both a primary healthcare centre and a local healthcare resource centre may not need to provide spaces such as a major treatment and recovery room in the primary healthcare centre.

Primary healthcare centre (enhanced)

3.21 Functional parts of the appropriate size, as determined locally, may be selected from the "Schedules of accommodation" for the local healthcare resource centre and included with a primary healthcare centre.

3.22 The functional parts for "Medical and surgical investigation and treatment services", "Community psychiatric services" and "Social services" in a local healthcare resource centre may be provided in a primary healthcare centre by the inclusion of additional consulting/examination rooms and office workstations, as appropriate, from OAS allowances. Reference should also be made to Figures 4 and 5 where appropriate.

Integration and shared use of spaces

3.23 Consideration should be given to the integration and

shared use of appropriate spaces. Spaces to be integrated and shared should have:

a. similar space requirements;

b. compatible locational requirements;

c. complementary timetabling requirements.

Centres may accommodate a wide range of users. The users' roles and relationships to each other need careful consideration.

3.24 The possibility of over-provision of space and the opportunity for economy of provision of space increases in direct relationship with the size of centre. Economical space provision can be achieved by planning for spaces to be used:

a. more intensively for a particular purpose. This means that the amount of space for a service or group of services should be no more than is currently needed, that unnecessary duplication should be avoided, and that spaces should be used more continuously over longer periods of the day and week by programming for different users;

b. for more than one function or purpose. This means reducing the specialised nature of the accommodation, when possible, so that its usage by various users for various purposes is not unduly restricted or precluded.

3.25 The accommodation should be arranged in such a way as to facilitate informal contact and encourage natural communication between staff with related interests. Appropriate self-contained functional parts may be dis-aggregated and functions may be integrated with a view to stimulating team working.

Internal relationships

3.26 Well-designed access and circulation routes within centres will be as direct as possible, and therefore obviate the need for any additional (or excessive) signing.

3.27 Patients should not have to walk far between waiting areas and the clinical spaces attended (that is, the rooms used for consultation, examination and various forms of treatment). Rooms used by staff who work together in a team should be closely grouped.

3.28 Spaces attended by the largest numbers of patients should be closest to the main entrance. Staff should be able to move freely between clinical spaces, office areas and staff accommodation without passing patients who are waiting.

Planning considerations

Access and parking

3.29 Access to a primary healthcare centre and local healthcare resource centre should be provided for people arriving on foot and for cars, ambulances, delivery vans and service vehicles.

3.30 Space to park cars should be provided for patients, staff (including staff from other organisations who visit on a sessional basis) and visitors. Existence of a nearby public car park may reduce on-site parking requirements. The number of spaces to be provided should be agreed with the local planning authority.

3.31 Reserved parking spaces should be provided for staff who regularly work in both the centre and the community and who therefore need to use their cars during the course of the working day. These staff include GPs and district nurses. (Ideally, the reserved spaces should be close to the entrance used by staff, but not close to the main entrance where the emphasis is on access for patients.)

3.32 Dedicated parking spaces should be provided near the appropriate entrance(s) for patients and staff whose medical condition makes normal access difficult.

3.33 Some patients arriving and leaving by private car may need to be set down prior to – and collected following – attendance, at a point close to the main entrance to a centre. This objective can be achieved if the car park is located:

a. close to the main entrance, and an adequate number of spaces can be reserved for use by this group of patients; or

b. remote from the main entrance, while ensuring that adequate space is provided near the main entrance where cars can be parked temporarily while escorts attend to patients.

Privacy

3.34 It is essential for people attending primary healthcare centres and local healthcare resource centres to be able to preserve their privacy and personal dignity. Confidentiality is an important aspect of the relationship between a patient and a member of the healthcare team. There are two places in a healthcare centre where poor design can lead to breaches of privacy and confidentiality:

a. the reception area: at the reception desk, the patient may not wish the conversation with the receptionist to be overheard by other people in either the reception or adjacent waiting areas. Additionally, the receptionist may deal with incoming telephone calls which should not be overheard by waiting patients;

b. the clinical/consulting rooms: in the actual consultation, any delicate or potentially embarrassing topics need to be discussed freely and in confidence. It is equally important that discussion of cases between members of the primary healthcare team should not be overheard by patients.

3.35 Healthcare centres should be designed to minimise the possibility of sound being transmitted through the building's doors, ceiling voids or service ducts.

3.36 Forward waiting within the clinical zone should be avoided, as patients will feel that there is limited privacy if they have overheard even part of the previous consultation. Where such forward waiting is unavoidable, it should be acoustically screened from the consulting room door.

3.37 Clinical or consulting rooms should not have more than one door, since interconnecting doors cannot always provide reliable soundproofing and patients may feel uneasy if they are unsure whether they can be overheard.

3.38 Visual privacy is equally important. Rooms should be arranged, where possible, so that the chance opening of a door to a consulting room will not enable the patient to be seen by other waiting or passing patients.

3.39 There is often a conflict between privacy and the need for natural light (see also paragraphs 5.18 to 5.22), especially in clinical or consulting rooms. It should not be possible to see into such a room, either from outside or from elsewhere within the building. Where such rooms are overlooked from paths, car parks and public spaces, they should be screened by walls or planting. Small walled gardens and internal courtyards can often be used to good effect.

3.40 Healthcare premises which are located in urban areas or adjacent to main roads may find the intrusion of external noise a problem. A quiet room is required for consultation, and such rooms should be oriented away from any potential external source of noise.

Disabled people

3.41 It is essential to ensure that suitable access and facilities are provided for people who have problems of mobility or orientation or other special needs. This category includes, besides people who are wheelchair-bound, those who for any reason have difficulty in walking, those with a sensory handicap such as visual or hearing impairment, and those whose first language is not English. Project teams are reminded of the need to comply with the provisions of:

a. the Chronically Sick and Disabled Persons Act 1970 and the Chronically Sick and Disabled Persons (Scotland) Act 1972;

b. the Chronically Sick and Disabled Persons (Amendment) Act 1976;

c. the Disabled Persons Act 1981;

d. the Disabled Persons (Services, Consultation and Representation) Act 1986;

e. Approved Document M (1992) to the Building Regulations 1991.

3.42 Attention is drawn to BS5810: 1979 'Access for the Disabled to Buildings' (under review). One of the effects of the 1981 Act is to apply this British Standard to premises covered by the 1970 Act, which includes those open to the public. Practical guidance for complying with the Building Regulations is issued by the Department of the Environment under Approved Document M: 'Access and facilities for disabled people'. (For Scotland, attention is also drawn to recent amendments to Part T of the Technical Standards for compliance with the Building Standards (Scotland) Regulations 1990, which extend the specific requirements for access and facilities for disabled people – which previously applied only to the ground floor – to the upper floors of all buildings except dwellings.)

3.43 Project teams should refer to HBN 40 – 'Common activity spaces' – a set of volumes which includes guidance and ergonomic data sheets on access, space and equipment relating to disabled users of health buildings.

3.44 It is recommended that project teams consult local representatives of disabled people, or the Centre for Accessible Environments, with regard to the planning of spaces used by patients and escorts.

3.45 In locations where public telephones are provided, one should be mounted at a height suitable for use by a person in a wheelchair and the handset fitted with an inductive coupler to assist any person using a hearing aid. See also HBN 48 – 'Telephone Services'.

Provision of WCs

3.46 WCs are required in primary healthcare centres and local healthcare resource centres:

a. for male and female patients, escorts, staff and visitors, any of whom may use walking aids or a wheelchair;

b. for patients and escorts, close to the main waiting area and consultation/examination/treatment spaces.

In responding to these diverse needs, care should be taken to avoid the provision of an excessive number of WCs.

3.47 Single, self-contained "unisex" WCs, which are appropriate for use by men or women, are considered satisfactory and a practical solution. Designing one WC in an accessible location to appropriate standards would cater for all users whilst making an economic provision.

3.48 Individual projects will need to balance the amount of sharing of facilities to meet functional requirements while still ensuring the maintenance of privacy and dignity required in centres, and take into account any ethnic/cultural aspects appropriate to the composition of the local population.

4.0 Specific functional and design requirements

Introduction

4.1 This chapter describes the individual spaces in primary healthcare centres and local healthcare resource centres. Details of activities, equipment, environmental conditions and finishes are given in the activity data sheets listed in Chapter 8. Reference should also be made to the relevant Health Technical Memoranda covering Component Data (see paragraph 5.4).

Relationships of spaces

4.2 Figure 5 identifies the relationships of spaces and groups of spaces described in this chapter.

DESCRIPTION OF ACCOMMODATION IN A PRIMARY HEALTHCARE CENTRE

4.3 The following descriptions of spaces in a primary healthcare centre rely partly on HBN 46 – 'General medical practice premises'.

4.4 All spaces included in the "Schedules of accommodation" in Chapter 7 of this HBN are listed below. Text is added against space titles in order to supplement and/or update information provided in HBN 46 only as necessary.

Patient reception spaces

4.5 There are five main areas to be considered when planning patient reception spaces:

a. arrival and departure of callers;

b. reception;

c. waiting;

d. patient call and circulation to clinical areas;

e. access for the disabled.

Reference should also be made to HBN 46, Chapter 5.

Main entrance canopy

4.6 An entrance canopy, if provided, should be large enough to afford adequate weather protection for patients alighting from and entering vehicles. The space should be well lit.

Main entrance draught lobby

4.7 The draught lobby should be large enough to accommodate the easy movement of pedestrian traffic, including disabled people who may be in wheelchairs, using walking aids, with pushchairs (which may be of the double-buggy type), or assisted by an escort. Consideration should be given to the provision of automatic sliding doors (particularly in large centres), also to the provision of a floor covering which will trap dirt carried by footwear and on wheels and which can be easily cleaned. Additionally, a small amount of seating should be provided adjacent to the draught lobby or in the main waiting area, so that patients are within sight of those coming to collect them.

Reception desk

4.8 The reception desk should be friendly and not confrontational. There is evidence that violence occurs less at welcoming open-plan reception desks than at enclosed "secure" reception offices. Staff at the reception desk need a clear sightline through the entrance area as a security measure, and should be able to view all waiting areas. Receptionists should be able to raise an alarm in case of danger from violent behaviour. A fall-back situation may be required in some localities, for example, the ability to retreat into a safer space, such as the records store, until help arrives. Consideration should also be given to the provision of a small interview room adjacent to the main reception area.

4.9 Space will be required at the reception desk for visual display terminals (VDTs) and keyboards, and a working supply of stationery and office accessories. A computerised appointments system will obviate the need for an appointments book.

Main waiting area

4.10 The layout should be informal; large waiting areas can be divided by use of screens and planting. Finishes and furnishings should be as domestic as possible consistent with the need for durability. A public telephone should be provided.

Children's play area

4.11 The children's play area should be located adjacent to the waiting area, and should be visible from both the reception desk and main waiting area. Screening to prevent noise should be considered. A bay for storing baby-buggies and pushchairs, a nappy changing room, and the WCs for patients and their escorts, should all be nearby.

Baby-buggy and pushchair bay

4.12 A bay is required where parents/carers can safely and securely store baby-buggies and pushchairs during their period of attendance. Baby-buggies and pushchairs may either be hung on the wall or placed on shelves: appropriate wall protection and locking devices are necessary. To afford additional security, the contents of the bay should be visible to staff based at the reception desk.

WCs for patients and escorts

4.13 WC facilities for male and female patients and their escorts should be provided close to the main waiting area.

Specimen WC

4.14 A specimen WC, with wheelchair access and a hand-wash basin, should be provided close to the main waiting area for use by all disabled people who attend, or work in, the primary healthcare centre. Patients should not need to walk through the waiting area for this during a consultation. Ideally, a hatch should be provided to enable urine specimens to be passed from the WC to the dirty utility room. If provision of a separate nappy changing room is not justified, the specimen WC room could contain nappy changing facilities. (See also HBN 46, Chapter 6, paragraphs 6.32 to 6.36.)

Nappy changing room

4.15 A room where a baby can have a nappy changed, in privacy, should be available. Seating, and facilities for the disposal of waste, are required. Hand-wash facilities should also be provided.

Consulting, examination and treatment spaces

4.16 The clinical spaces provide a point of private and confidential contact between patients and the primary healthcare team. Particular reference should be made to HBN 46, Chapter 6. It is important, when considering the number of consultation/examination rooms required, that full account is taken of the increasing emphasis being given to health promotion and maintenance programmes and that sufficient facilities are allowed for these activities to be performed by various health professionals simultaneously with GP sessions. Some sessions may use the group rooms, but others may require the more private type of facility. Nurse practitioners are becoming increasingly common and could also require consultation/examination/treatment spaces.

Consulting/examination room

4.17 An office workstation (see HBN 18 – 'Office accommodation in health buildings'), which includes space for a VDT and keyboard, should be provided in all consulting/examination rooms.

Sub-waiting area

4.18 A small sub-waiting area (for "forward waiting") should be provided in support of, and close to, the treatment and major treatment rooms.

Treatment room

4.19 An office workstation will be required by the practice nurse for clerical duties.

Utility room

4.20 Facilities are required for the storage of sterile supplies, the preparation of treatment trays, the disposal of refuse and the cleaning of instruments. Reference should be made to HBN 46, paragraph 6.31.

Office accommodation

4.21 Office accommodation is required for the administration of the centre and for professional contact between members of the healthcare team. Reference should be made to HBN 46, Chapter 7.

Practice manager's office

4.22 An office is required for the practice manager. This office should accommodate an office workstation with VDT and keyboard, seating for up to three other persons, and storage for books and files.

General office

4.23 A multi-person office with two office workstations is required for staff who provide administrative, secretarial and clerical support services for all health professional users of the primary healthcare centre. One of the office workstations may include the telephone switchboard and a fax machine for the centre.

Records store and records office

4.24 Workstations will be required by staff responsible for retrieving and filing health records, and for carrying out other health records tasks – for example, extracting information. Due regard should be given to the increasing importance of audit and research work and to the need to accommodate audit and research staff and associated data equipment, including the computers which they use. The office workstations may be:

a. en-suite with the records store;

b. provided in a separate office or offices;

c. shared between the records store and a separate office.

Facilities for staff

4.25 The staff facilities include spaces for the administration of the centre, professional contact between members of the primary healthcare team, and staff social functions. Reference should be made to HBN 46, Chapter 7.

Staff rest room/common room

4.26 A rest room, where all members of staff can relax and take beverages and snacks, can play a major part in promoting cooperation and good personal and professional relationships. The rest room should have windows with a pleasant outlook, be comfortably furnished, and include a telephone. The rest room should have direct access to the pantry, and be located with other facilities for staff and away from patient treatment and traffic areas. Small lockers may be located here, for the secure storage of small items of personal belongings for staff who do not have their own office workstation.

Pantry

4.27 Pantry facilities are required for the safe handling of food, including the preparation of beverages and light snacks, for washing and storing crockery and cutlery, for storing a limited quantity of dry goods, and for the refrigerated storage of milk, etc. Equipment should include a stainless steel sink and drainer, an electric water boiler, a microwave cooker, a worktop with cupboards, an automatic dishwasher and a hand-wash basin.

4.28 The pantry may also be used for preparing occasional beverages for patients and their escorts. For this purpose, a separate entrance should be provided so that staff can access the pantry without passing through the rest room.

Staff WC

4.29 A staff WC should be provided in association with other facilities for staff.

Utility spaces and stores

Storage (general)

4.30 Particular reference should be made to HBN 46, paragraphs 7.30 to 7.36.

Cleaners' room

4.31 The space and facilities provided should be sufficient for parking and manoeuvring cleaning machines and a cleaner's trolley, also for the cleansing of cleaning equipment and the disposal of fluids and used cleaning materials. Hand-washing facilities are also required. Shelving and vertical storage should not encroach on the working space or restrict access to the cleaners' sink. Not requiring a close relationship with any particular area within the centre, the cleaners' room should be located away from the principal routes used by patients.

4.32 In a centre which cannot be accommodated in a single-storey, the cleaners' room should normally be sited on the storey which has the largest area. A smaller room, with a bucket-type sink for obtaining a supply of water and for the disposal of fluids, and with handwashing facilities, with space to park a cleaner's trolley and with storage for cleaning materials, should be provided on other floors.

Disposal room

4.33 A disposal room is required where various materials awaiting removal from a centre can be held. Because individual materials require to be handled in different ways, the disposal room should be divided or compartmentalised to facilitate segregation and to minimise the risk of mistakes being made.

4.34 Consumables which may be held in the disposal room include:

- bags of refuse for collection by the local authority;
- bags of clinical waste for collection by the local authority or for incineration;
- linen for laundering;
- equipment for reprocessing, perhaps by a hospital sterile supplies department.

Optional Accommodation and Services (OAS)

Consulting, examination and treatment spaces

Consulting/examination room/trainee GP

4.35 Reference should be made to paragraph 4.17 above, which outlines the type of office accommodation to be provided.

Interview room

4.36 Most confidential discussions will take place in consulting/examination rooms. However, an interview room, provided with natural light and furnished with easy chairs and an occasional table, will provide a more suitable and relaxed environment for some extended interviews and counselling. An interview room may be used by doctors,

nurses, social workers and other staff, and should be located close to the consulting/examination rooms.

Major treatment room

4.37 A major treatment room is required where GPs and visiting hospital doctors can perform medical and surgical investigation and treatment procedures, including certain endoscopies.

4.38 The major treatment room will be appropriate for procedures which:

a. require a more sophisticated environment than the treatment room, for example more space or specialised equipment;

b. do not require general anaesthesia;

c. may be performed in a naturally ventilated environment.

4.39 Most patients will walk into the treatment room and climb onto the table or trolley. Facilities will be required for patients to hang outdoor clothing, and a suitable surface should be available for any other items of clothing which they may need to remove. If treatments are performed on a list basis, then separate changing facilities may be required.

4.40 Specific equipment requirements will be determined by the particular procedures performed. If intra-venous sedation is used, patients will need a trolley on which to recover. Resuscitation equipment, including oxygen and suction, should be provided. An X-ray viewer is also required.

Recovery room

4.41 A recovery room is required where patients can recover or rest prior to leaving the centre.

4.42 Patients may transfer from the major treatment room to the recovery room on a trolley, in a wheelchair or on foot. The two rooms should be located close to each other.

4.43 The recovery room should be furnished like a domestic lounge, with a mixture of reclining and conventional easy chairs and an occasional table. A supply of current reading matter should be available. Escorts may join patients for the recovery period. A drinking fountain, or simple beverage-making facilities, should be provided in the recovery room.

Clean utility room

4.44 A clean utility room is required, where drugs, medicines and lotions may be stored and prepared, a working supply of clean and sterile supplies may be held, and dressing trolleys prepared for use in consulting/examination/treatment spaces. Units should be provided for the storage of flexible endoscopes and accessories. A Controlled Drugs cupboard is located here. Separate storage facilities are required by different groups of staff; the workload, and volume of goods to be stored, may warrant the provision of a separate room.

4.45 The room should be located adjacent to the major treatment room and close to the treatment room(s) and consulting/examination rooms. Clinical hand-wash facilities are required. The facilities in the clean utility room may also be used by district nurses, community midwives and other staff at the centre for maintaining equipment they use on home visits and for storing clean supplies for replenishing.

Dirty utility room

4.46 A dirty utility room should include facilities for the cleaning of dressing trolleys and other items of equipment, for testing specimens of urine and recording results, for the disposal of liquid waste, and for temporarily holding items requiring reprocessing or disposal. A combined disposal unit, with worktop, and clinical hand-wash facilities will be required. Mechanical extract ventilation should be provided. The dirty utility room should be located adjacent to the major treatment room. If possible, it should also be adjacent to the specimen WC and include a hatch through which specimens can be passed. Facilities are required for:

a. cleaning and disinfecting endoscopes and accessories which cannot be sterilized;

b. sterilizing other endoscope accessories;

c. automatically/manually emptying, washing and disinfecting suction bottles, including the provision of:

   (i) an automated endoscope washer/disinfector;

   (ii) an automated suction bottle washer/disinfector;

   (iii) a sink unit with two sinks/double drainer;

   (iv) suction for irrigating tubes and cannulae;

   (v) a worktop autoclave for endoscope accessories;

   (vi) an ultrasonic cleaner for flexible endoscope accessories;

   (vii) storage of personal protective equipment for use when mixing and dispensing glutaraldehyde.

Group room

4.47 A group room is required for group functions, such as ante-natal classes or some health promotion activities.

4.48 Shelving and display racks for health promotion material may be required, as well as chairs, exercise mats and facilities for hanging outdoor clothing. Consideration should also be given to the provision of a small beverage point. The person taking the group session may require a table and chair, projector(s) and screen, and a TV monitor/video.

4.49 A store should be provided en-suite with the group room for storing exercise mats (perhaps on a mat trolley) and items of furniture and equipment not in use.

Child assessment room

4.50 Although many of the routine procedures carried out by health visitors in monitoring a child's development against the normal "milestones" could be performed in the group room if that was available, some assessment procedures require more private facilities. More detailed assessments involving other professions may also need an environment which is relatively free of distractions. A separate room may therefore be required.

Dispensary

4.51 Reference should be made to HBN 46, Chapter 7 (paragraphs 7.20 to 7.24) in respect of a dispensary for a dispensing practice.

4.52 Facilities for the secure storage of drugs required in all general medical practices are included in the clean utility room (see paragraph 4.44).

Office accommodation

Fund manager's office

4.53 An office is required for the fund manager. The office should accommodate an office workstation with VDT and keyboard, seating for up to three other persons, and storage for books and files.

Attached or practice nurse interview room

4.54 Reference should be made to paragraph 4.36 above.

Community staff office

4.55 A multi-person office with office workstations is required for community healthcare staff – for example, health visitors, district nurses, community psychiatric nurses, community midwives and fieldwork teachers, who work mainly in the local community but who need an office base where they can carry out administrative and clerical duties and communicate with colleagues.

4.56 Use of desks may be shared, although dedicated use of (a) filing drawer(s) may be necessary. The number of office workstations will need to be determined locally: additional workstations may be provided.

Social worker's office

4.57 An office should be provided for a social worker or care manager based in the centre. The office should accommodate an office workstation with VDT and keyboard, seating for up to three other persons, and storage for books and files. The office may also be used for interviewing clients. Additionally, the social worker or care manager may use the interview room.

General office – workstation

4.58 Reference should be made to HBN 18 – 'Office accommodation in health buildings'.

Facilities for staff

Seminar room

4.59 A seminar room should be provided in a primary healthcare centre where:

a. teaching, including the teaching of undergraduates; tutorials; audit, research and other meetings; case conferences; and clinical instruction can all take place;
b. staff may consult text books, professional journals and other resources;
c. staff may read and study.

4.60 Furniture and equipment may include library shelving or bookcases, upright stacking chairs with writing arms, a wall-mounted whiteboard, a mobile X-ray viewer, a video/TV monitor, a VDT and keyboard, a wall-mounted display panel and facilities for storing various items.

Staff shower

4.61 A staff shower should be provided in association with other facilities for staff.

Utility spaces and stores

Loans store

4.62 A small store is required, with facilities for the storage, issue, receipt and cleaning of any equipment loaned to patients. Floor space will be required for items such as lifting devices and commodes, wall hanging spaces for items such as crutches, and shelf space for items such as bedpans. The loans store may be used by district nurses and community midwives for holding bulk items such as incontinence pads. The store should be located near the service entrance and should be lockable.

DESCRIPTION OF ACCOMMODATION IN A LOCAL HEALTHCARE RESOURCE CENTRE

4.63 Spaces which may be included in a local healthcare resource centre are listed under the titles of the various functional parts in the "Schedules of accommodation" in Chapter 7.

4.64 There is scope for integrating and sharing like spaces included in various functional parts, for example, reception desks, main waiting and sub-waiting areas and WCs. Project teams should consider the total accommodation to be provided and decide whether to provide such spaces with accommodation for individual functional parts or to combine the spaces. Account will need to be taken of the number, content, size and location of the functional parts.

4.65 Reference should be made to the descriptions of spaces in the primary healthcare centre above in respect of like spaces in a local healthcare resource centre: the space titles and descriptions are not repeated below. The following descriptions deal with variations and additions to spaces in a primary healthcare centre.

4.66 It is envisaged that four "core" functional parts will be required in all local healthcare resource centres: reference to these, "Patient reception spaces", "Office accommodation", "Utility spaces and stores" and "Facilities for staff" is, therefore, included first.

Patient reception spaces

4.67 Reference should be made to paragraphs 4.5 to 4.15 above. In addition, consideration may be given to the provision of a recessed beverage bay in the main waiting area where vending machines may be placed.

Office accommodation

4.68 Reference should be made to paragraphs 4.21 to 4.24 above.

Centre manager's office

4.69 An office is required for the centre manager. The office should accommodate an office workstation with VDT and keyboard, seating for up to three other persons, and storage for books and files.

Facilities for staff

4.70 Reference should be made to paragraphs 4.25 to 4.29 above.

Staff changing facilities

4.71 Consideration may be given to changing facilities for male and female staff. While each sex will require a separate changing area, the total space may be divided by a demountable partition. This partition provides flexibility in relocating space to either the male or the female staff area should the ratio between the two sexes change. An individual locker may be allocated to each member of staff.

Utility spaces and stores

4.72 Reference should be made to paragraphs 4.30 to 4.34 above.

Medical and surgical investigations and treatment spaces

4.73 Reference should be made to paragraphs 4.16 to 4.20 and 4.35 to 4.52 above.

Radiodiagnostics

Combined X-ray/ultrasound room

4.74 A combined radiodiagnostic/ultrasound room is likely to be a sufficient level of provision for most local healthcare resource centres. Facilities required will be as follows:

X-ray facilities: the procedures performed in this room will usually be of short duration and will require only basic equipment. (This is described in HBN 6, paragraphs 3.43 to 3.46.) Dim-out facilities will be required. The room contains heat-emitting equipment, and should therefore be mechanically ventilated to provide a comfortable environment for patients and staff. The workflow sequence in this room is:

a. the radiographer reads the request and reviews previous reports and films (if any) on a viewer;

b. the patient is brought into the imaging room and removes any clothing necessary. (In the absence of changing cubicles, privacy screening is required, as is somewhere to place clothes – for example, a chair);

c. the patient is placed on the imaging equipment and the examination is carried out;

d. the films are marked with the patient's details;

e. the patient waits in the diagnostic room, or dresses and returns to the sub-waiting area, while the films are being processed;

f. the radiographer goes with the documents and previous films to collect the newly-processed films and checks them in the viewing area;

g. if the films are satisfactory, they are shown to the clinician before being sent for reporting.

4.75 *Ultrasound facilities:* ultrasound scanning is widely carried out for general diagnosis and also for the control of interventional procedures. Space will be required for multi-format and/or video camera. This room will require a workstation where both radiodiagnostic and ultrasound staff can carry out reporting and administrative tasks. Increasingly, digital transmission of images enables analysis to be carried out at a specialist centre such as an acute general hospital; both image and report can then be transmitted back to the GP surgery via the telephone wires.

Separate X-ray room

4.76 Project teams may wish to consider the provision of a separate X-ray room. For details of the facilities required, please refer to paragraph 4.74 above. See also HBN 6, Chapter 3.

Separate ultrasound room

4.77 Please refer to paragraph 4.75 above. See also HBN 6, Chapter 3. If used solely for ultrasound, this room does not require radiation protection measures. Patients may need to change into gowns, and therefore facilities for privacy when changing and for safe-keeping of clothes and valuables are required.

Processing room

4.78 For most processes daylight processing is recommended. A darkroom permits facilities for loading of film magazines, cine cassettes and film copying. The design of the room and choice of equipment can be such that if not required as a darkroom it can function in normal light conditions as a daylight system. An automatic processor is an integrated system where the unloading and reloading of cassettes, as well as the processing of film, are all undertaken in the one unit. A sink suitable for cleaning the processor racks must be sited conveniently. Local consideration should be given to the need for a second processor of smaller capacity for use as a standby in case of breakdown.

4.79 If a darkroom is provided, a viewing area should be positioned next to the darkroom. The processor should be positioned so that the "feed-in" end is in the safe-lit area and the "output" end in the adjacent viewing, checking and preliminary reporting area. When the door is closed, magazines and cine cassettes may be passed into the darkroom via a cassette hatch. There will be a need for safe-lighting (coupled to an exterior warning light), a white light, level space for unloading and loading cassettes, and cupboards for storage.

4.80 Normally, automatic mixers are used which will open and mix packs of chemicals as required and give warning when further supplies are needed. These avoid the need for direct contact with the chemicals and eliminate the risk of technicians being splashed during mixing. Consideration should be given to the recycling of fixer solutions. Ventilation requirements are described in HBN 6, paragraph 5.34.

4.81 A system for the recovery of silver to prevent pollution is essential. Various methods are described in HBN 6, Appendix 8. Security arrangements are needed to ensure the safety of the equipment from unauthorised interference and also for the safe custody of recovered silver flake. General advice on chemical effluent is described in HBN 6, paragraph 5.96.

Store

4.82 Storage facilities will be required for:

a. unused film – storage is required for one month's stock of film of all sizes in common use. It should be sited away from radiodiagnostic rooms or shielded from radiation and should be located in a ventilated and cool environment. The weight of the film to be stored should be taken into account in the design and positioning of shelving. Security is important;

b. chemical store – a ventilated storeroom, preferably situated near the processing area, is required for storage of chemicals used in the processing of radiographs. Shelves will be required, and account should be taken of the weight of the chemicals to be stored. Floor finishes should be impervious to chemical spillage;

c. linen, stationery and small items of equipment not in frequent use will be held within the general storage facilities, and the size of the stores will need to reflect this.

Office

4.83 This office should be capable of being dimmed. It will require storage space for records of administration, maintenance, radiation protection and other documentation. It will require limited space for books and periodicals. The reporting and administrative work may require a workstation with VDT and easy access to a printer, situated so as to maintain confidentiality. Seating for up to three other people may also need to be provided in this room. In addition to conventional illuminators, electronic image viewers may be required.

Pathology

Laboratory

4.84 Laboratory benches, sinks and hand-washing facilities are required. The laboratory staff receive, test and report on specimens; stringent safety precautions are therefore required for the handling and transport of clinical specimens and the disposal of clinical waste. Workstation facilities are also required, since results may be generated on to, and transmitted by, computer.

Store

4.85 Storage is needed for specimen containers, stationery, protective clothing and small items of equipment. If contained within a single store, partitions should be created to enable separate and safe storage of chemicals and flammable liquids. The types and values of the substances used need to be taken into account, and specialist advice should be sought.

Chiropody/podiatry

Surgery

4.86 Patients are seated in a chair which allows the feet to be elevated. The chiropodist needs to access the feet from the foot of the chair and from either side. Space is therefore required for an instrument trolley. Good adjustable fixed or mobile lighting is required. Hand-washing facilities, also facilities for the disposal of clinical and other waste, are required. (A small sterilizer/autoclave may also be necessary.)

Store

4.87 Storage facilities are required for small items of equipment, stationery and dressings etc. The size of the store will largely depend on the extent to which pre-sterilized pads are used. Lotions for topical application may be stored either here or in the clean utility room.

Community psychiatric services

Office

4.88 Small office facilities are required where a community psychiatric nurse (CPN) and other members of the community mental health team can write up/type in patient records and complete administrative tasks. The office should accommodate an office workstation with VDT and keyboard.

4.89 A larger multi-person office, equipped with workstations and computers, is required, where staff can write up notes and complete their administrative tasks.

Interview room

4.90 Access to a small interview room is required, where a CPN or other member of the community mental health team can interview a patient in private. See also paragraph 4.36 above.

Group room

4.91 If the general group room is intensively used, a separate room will be required where members of the psychiatric team can meet patients as a group. Such a group may be involved in discussion or activities. The room needs to be comfortable, and designed to allow as much flexibility of use as possible. The room does not require any special furniture.

Store

4.92 A store may be required for stationery, small items of equipment and health promotion materials, if suitable space cannot be shared. (Drugs and injection equipment will be stored in the clean utility room.) This space may also be used for the storage of any items of furniture from the room described in 4.91 above, when these items are not being used.

Social services

Group room

4.93 Social services staff may require the provision of a group room if suitable facilities within the local healthcare resource centre cannot be accessed because of timetabling or other difficulties. This space may be shared with, or double as, the Community Psychiatric Group Room – see paragraph 4.91 above. (See also paragraph 4.36.)

Additional office

4.94 An additional office with workstations may be required if there is a large social services workload in the local healthcare resource centre.

Store

4.95 A small general-purpose store may be required if storage elsewhere in the centre cannot be shared.

Physiotherapy

Patients' changing facilities

4.96 Some patients will need to change for treatment. They will require the privacy of changing accommodation for this. Others may be directed into individual treatment cubicles or into the exercise area. During treatment patients may need to move from one area to another. Adequate circulation space is also needed for the movement of patients in wheelchairs or using walking aids. A toilet must be provided which is suitable for use by disabled persons.

Treatment cubicles

4.97 Treatment carried out in the cubicles may include traction and a range of electrotherapy modalities. This area should be easily accessible from the staff base and the patients' changing accommodation. There should be access to hand-washing facilities and water for treatments in the treatment cubicle area. The cubicles require adequate space for a couch, chair and mobile equipment, also a shelf for small equipment. Provision is required for the hanging of outdoor clothes. Cubicles may need to be large enough to enable traction apparatus or larger electrotherapy equipment to be used. A welded steel mesh may be required above, behind and/or alongside the treatment couches, to enable pulleys or other equipment to be attached. Secure storage is required for small items of equipment, such as portable electrotherapy appliances.

Exercise area

4.98 Active treatment of patients will be undertaken in the exercise area with individual patients or groups of patients. It is helpful if exercise rooms have an open aspect to courtyard gardens but retain a degree of privacy. The treatment may involve equipment necessitating ample allocation of space. Some items of equipment are free-

standing, whereas others are fixed. Some equipment will need all-round space – for example, exercise tables, benches, parallel bars, weights systems and exercise ergonometers – and space may also be required to allow for ball-throwing. The overall space allocation for the exercise area will need to accommodate a hand-wash basin, some chairs and a small desk/table for use by the therapist; if appropriately sited, this could double as the staff base for the cubicle area.

Store

4.99 Secure storage is required for the various items of equipment likely to be used in the activity areas, including mobile equipment and walking aids. This space must be sited adjacent to or within the exercise area. It should be possible to move apparatus easily into and out of the storage space and to be able to withdraw or replace individual items without disturbing other items.

Office

4.100 An office may be required for general administrative work such as maintaining case records. It needs to be suitably equipped with desks or tables. It should contain records and storage space, telephone(s), and possibly also a VDT.

Occupational therapy

Activity area

4.101 The area contains equipment and apparatus which will assist patients to regain motor, cognitive and sensory skills. Some of the activities may be used to stimulate interest and concentration. Adequate space will be required for attendance on patients by staff, for flexibility in positioning patients and equipment, and for wheelchair access. Light activities require desk and table space, some of which will need to be at varying heights. Patients will sit or stand, and can undertake:

a. clerical and office tasks – for example, writing;

b. copying, typing, guillotining;

c. educational work – for example, mathematics;

d. remedial games used on tables, floors or walls;

e. various creative activities;

f. work with a personal computer (PC).

It is assumed that most assessment of the activities of daily living will be performed in the patient's own home. A range of small aids and equipment will be available for the patient to try out.

Interview/treatment room

4.102 A separate area is required for confidential interviews and for more individual treatment.

Store

4.103 Secure and convenient storage is required for a range of materials and equipment. Local advice should be taken regarding the particular activities and storage requirements, as the correct combination of shelves, racks or drawers will be important.

Office

4.104 Unless suitable shared accommodation is available, an office will be required for administrative work and monitoring records. The office needs to provide facilities for desk work for one person (including the use of a computer terminal), and seating for up to three others. Space is required for books and periodicals and some filing.

Speech therapy

Therapy room

4.105 Although used mainly for individual treatment, this room should be large enough to accommodate a small group of patients. Normally, the room would need to accommodate a speech therapist and a patient (who may be in a wheelchair) plus a family member and/or an assistant speech therapist. Although the room should have natural light, there should be no distraction caused by any views through windows. Careful consideration should be given to the provision of adequate sound attenuation, also ventilation. There should be storage space for files, clerical materials and small assessment items. Hand-washing facilities are required. A full-length mirror, either fixed or free-standing, is also required. Beverage facilities may need to be available if patients attend for several hours.

Store

4.106 It is important that communication aids and other expensive micro-electronic equipment are securely stored, and that there is adequate space for this storage.

Dental services

Reception desk/office records

4.107 An area is required for the reception of patients, who will usually have appointments. Provision should be made for patients to speak to reception staff in privacy. Behind the reception desk should be office facilities which allow for the full range of administrative tasks, including work at a computer. The space should also hold the dental records. Space is required for books and periodicals as well as general filing.

Waiting area

4.108 The waiting area should be able to accommodate wheelchairs. The area should be decorated and furnished in such a way as to reduce tension. Consideration should be given to the provision of coat hooks or rails to avoid too

much "outer wear" being carried into clinical areas. Reading material should be available.

Surgery

4.109 The design of a dental surgery should enable staff to adopt optimum working positions around a patient seated in a dental chair. The clinic environment should also take account of the need to treat patients who are seated in their own wheelchairs. The position of the dental chair will also affect the positioning of the dental cabinetry, the dental unit, the dental examination lamp and the service outlets.

4.110 Dental cabinets contain trays and fitted cupboards specially designed to take dental instruments and other items which may be needed at the chair-side. They are available in modules, and can be assembled and fitted with a continuous worktop. Space between modules, and under the worktop, should be provided for parking the dental unit. Inset clinical hand-wash basins should be provided for both the operator and his/her assistant and these should be operated by a hands-free system. A paper towel dispensing system for hand drying should be provided, together with a foot operated waste bin for each of the chair-side staff.

4.111 A separate area within the surgery is required for clerical tasks – for example, completing patient health records. These may be provided as modules of the dental cabinetry, although, in order to help prevent cross-infection, the surfaces must be separate from those used for clinical purposes. A separate area is also required for sterilization equipment, which should include ultrasonic cleaners, autoclaves suitable for both wrapped and unwrapped instruments, and a deep sink for the removal of heavily contaminated debris from hand instruments. This area should be well ventilated to remove contamination created by the oil sprays used for cleaning and lubricating hand pieces prior to autoclaving.

4.112 The dental unit, containing powered instruments and accessories, can be mounted on a small mobile pedestal, on an adjustable bracket arm extending from a fixed floor pedestal, on the dental chair, or fitted into a cabinet. In each case, the dental unit should be easily accessible to the dentist.

4.113 A dental examination lamp will be required. It may be mobile, integral with the dental chair or unit, or fixed to the wall or ceiling.

4.114 Medical oxygen and medical vacuum should be provided close to the dental chair. The dental unit requires compressed air, water, drainage and an electrical supply. A dental vacuum system should also be provided at each chair, and should be located so that the exhaust is to the outside of the building.

4.115 If X-ray equipment is to be used in this room, appropriate shielding and control consoles will be required.

4.116 For further guidance, reference should be made to HBN 12 – Supplement 2: 'Oral Surgery, Orthodontics, Restorative dentistry'.

Recovery room

4.117 This room should be as described in paragraphs 4.41 and 4.43 above, except that beverage-making facilities will not be required.

Store

4.118 A store is required, both for supplies of disposable items and for dental materials and equipment. Since many modern dental materials are sensitive to temperature changes, a refrigerator will be necessary. There will need to be floor space to park mobile equipment, also shelves for the storage of loose items.

Laboratory/processing room

4.119 If dental X-rays are to be developed and the facilities of a radiography department are not available, an automatic daylight processor will be required. Consideration may also need to be given to the extent to which this room may need light to be completely excluded, which will depend on the system chosen. Dental laboratory facilities may be provided for making braces, dentures and crowns, etc; work benches are therefore required. Facilities for ventilation and dust extraction from the polishing procedures undertaken must be provided. Sink and hand-wash basins should be provided. A small office workstation for administrative and clerical tasks may also be required.

Additional surgery

4.120 An extra dental surgery may be provided:

a. to allow the dentist to work on one patient while another waits for a local anaesthetic to take effect;

b. for the use of a second dentist;

c. for the use of a dental hygienist;

d. for specialist use – only one surgery would require X-ray facilities.

Community pharmaceutical services

Retail sales/waiting

4.121 An area is required where patients can wait to have prescriptions dispensed. This area can also display "over-the-counter" medicines and chemist sundries for sale. Some seating will be required. This area will need to be secured out of hours. Purchases will be made at the adjoining dispensary counter.

Dispensary

4.122 The dispensary will have a counter separating it from the waiting area. The counter will be capable of being opened, to allow staff through into the waiting area if required, and will need to be secured to a high level of security when not in use.

4.123 At the counter, staff will receive prescriptions, prescription fees, and money for items purchased from the retail sales area. Security for cash is therefore vital. A till is required.

4.124 In the dispensary, tablets, capsules, liquid medicines, ointments and other prescribed substances are dispensed, with measured amounts being placed in appropriate containers labelled with the patient's name, a description of the contents, and any relevant instructions. Hand-washing facilities are required. Work surfaces and sinks, also shelves – which should be adjustable – are required. Dispensing operators often use electronic counting devices, liquid measures and small balances, which require level and stable surfaces and electronic socket outlets. A supply of potable water, sterilized or freshly distilled, or drawn from rising mains, will be required for the preparation of some medicines. A grease-resistant section of bench should be allocated for the preparation of small quantities of ointments, creams or suppositories.

4.125 Any heating should be done electrically – for example, by an electrically-heated ointment slab or electric water bath. Similarly, an area filled with stainless steel sinks should be set aside for the preparation of small quantities of solutions and other "wet" products. If working stocks of flammable liquids are kept here, a lockable steel cabinet of an approved design will be required.

4.126 If a working stock of controlled drugs is to be kept in the dispensary it will require a security cabinet of an approved design with audio-visual alarms. Bench space next to the cabinet will be required for making entries in the controlled drugs register. (If hazardous substances are involved in any preparations, appropriate control and protection measures must be provided.) Special typewriters or computerised facilities will be required for the production of labels for dispensed items.

Stock room

4.127 A secure stock room is required, for stocks of pharmaceutical supplies, empty containers, stationery and disposable items. A growing proportion of reduced products need to be kept in temperature-controlled conditions. More items are being dispensed in their original packs than from bulk store. Child-resistant and unit-of-use packs require proportionately more space than other types of pack. Facilities are required for the receipt and unwrapping of goods. After unpacking and checking, goods are placed in the appropriate storage area.

4.128 Medical products requiring different environmental conditions need separate storage areas, such as a general store, coal store, security store and flammable store. (This separation can be achieved by the use of refrigeration, and by the provision of appropriate cupboards within a stock room with a high degree of security.) Storage space for containers (and possibly also for medical gases – see also paragraph 4.139 below) will be required, also storage space for dressings if these are issued from the dispensary.

Office

4.129 An office is required for general administrative work and record-keeping. A computer terminal and secure filing facilities should be provided. Space is required for books and periodicals. Facilities will be required for desk work by one person and seating for up to three others. The office should be sited to allow visibility of, and access to, the dispensary; although the office should be accessible to outside visitors, this should not compromise the security of the dispensary.

Community optician

4.130 A reception desk is required – see paragraphs 4.8 and 4.9 above.

Waiting area

4.131 A small comfortable waiting area is required, with wheelchair access. Either preceding or following treatment/examination, patients will wait in a small area sited adjacent to the treatment room, within sight of the reception desk and within easy reach of the consulting room. Natural light is desirable, and semi-easy chairs should be provided. There must be easy access to a nearby WC. Some of the waiting patients may have had eye drops instilled, which cause temporary blurring of vision; because of this, simple traffic routes are important, and structural columns in the waiting space should be avoided.

Consulting/examination room

4.132 Patients rarely have to undress for a full lying-down examination, and thus a couch with curtain screening should not normally be provided. Blackout facilities are required with mechanical extract ventilation. The blackout should exclude light completely at the windows. Light-tight doors are not necessary. Walls and ceiling should not be painted black, but should follow the colour scheme for the rest of the local healthcare resource centre. If there is a preference for working in subdued daylight, curtains which can be partially drawn should be provided in addition to the blackout facilities.

4.133 The main source of room lighting should be rapid lighting fluorescent tubes. In addition, there should be a ceiling tungsten light which can be dimmed when required. The lights should be capable of being controlled from close

to the patient as well as from a point by the entrance to the room.

4.134 It is usually convenient to have the trial lens case standing on the working surface in a position within easy reach of the optician when visual tests are being carried out with the Snellen's apparatus. A desk for note-taking is required.

4.135 The room should be equipped for all appropriate eye examination procedures using sight testing apparatus, a slit lamp and a wall-mounted Bjerrum screen for simple visual field tests etc. Indirect ophthalmoscopy examinations require the patient to be in the supine position; this can be achieved by the use of a tilting treatment chair, which needs to be correctly and semi-permanently positioned in relation to the equipment to be used. The use of the slit lamp is effected by mounting it on a specially constructed mobile table. The slit lamp can then be swung across the patient's lap when the patient is seated upright. Ancillary equipment should be kept close to the lamp.

Display area

4.136 A bright, well-lit area, equipped with racking for the display of frames, is required. This area should be well-supplied with fixed mirrors, and should be close to the reception desk. Upright chairs should be available.

Office

4.137 An office is required for administrative work. It requires facilities for desk work by one person and seating for up to three others. Shelving is required for books and periodicals. Storage is needed for general filing. A computer may be used.

Store

4.138 A secure store is required for mobile equipment, stationery and sundry items.

External areas

Medical gas cylinder store

4.139 Generally, it is envisaged that medical gases and suction will be supplied from cylinders, which give necessary locational flexibility. A dedicated cylinder store will therefore be required, in which medical gas cylinders may be stored. The store must be equipped with cylinder racks which conform with BS1319, 'Specification for medical gas cylinders, valves and yoke connection', and which are capable of holding the full range of gases used in the centre. The design of the store should facilitate identification of the type of cylinder, and the control of full and empty cylinders. The store should comply with the guidance set out in HTM 2022 – 'Medical gas pipeline systems'.

5.0 Other general functional and design requirements

Introduction

5.1 This chapter contains additional guidance on aspects of function and design which are common to all health buildings.

Statutory and other requirements, including Crown immunities

5.2 The guidance takes account, as far as possible, of all statutory and other requirements in force at the time of publication, but health authorities and trusts are reminded of their responsibility for ensuring compliance with all relevant statutes, regulations, codes and standards. Advice on this is given in HC(88)60/HC(FP)(88)29) (in Wales, WHC(89)20, and in Scotland NHS Circular 1987(GEN)4).

5.3 With the general removal of Crown immunity, building and planning law are legally enforceable on the NHS. Guidance on the removal of Crown immunity is given in HN(90)27/LASSL(90)15 (in Wales, WHC(91)4, and in Scotland NHS Circular 1991(GEN)1), in respect of a wide range of legislation.

Building components

5.4 The Building Components Database consists of a series of Health Technical Memoranda (HTMs) which provide specification and design guidance on building components for health buildings which are not adequately covered by current British Standards. No firms or products are listed. The numbers and titles of the various HTMs in the series are listed in the References section at the end of this Note.

Upgrading or adaptations of existing buildings

5.5 The standards set out in this guidance essentially apply to the provision of accommodation by new building. However, the principles are equally valid and should be applied, so far as is reasonably practicable, when existing accommodation is being upgraded or new accommodation is being constructed within an existing building which may previously have been used for other purposes. Compromises may have to be made between HBN standards and what is possible.

5.6 Before a decision is made to carry out an upgrading project, consideration must be given to the long-term strategy for the service, the space required for the new service, and the size of the existing building. Regard must also be paid to the orientation and aspect of the building, whether or not key HBN requirements can be met: for example, the need for accommodation with ground level access, and the adequacy and location of all necessary support services.

5.7 If a *prima facie* case for upgrading emerges, the functional and physical condition of the existing building should be thoroughly examined. The check of physical and other aspects of existing buildings should include:

- availability of space for alterations and additions;
- type of construction;
- insulation;
- age of the buildings and condition of building fabric – for example, external and internal walls, floors, roofs, doors and windows – which may be determined by a condition survey;
- life expectancy and adequacy of engineering services, ease of access and facility for installation of new wiring, pipework and ducts, if required;
- the height of ceilings. Operating theatres, for example, require a minimum ceiling height. High ceilings do not necessarily call for the installation of false ceilings, which are costly and often impair natural ventilation;
- changes of floor levels, to obviate any hazards to disabled people;
- fire precautions;
- physical constraints to adaptation, such as load-bearing walls and columns.

5.8 When comparing the cost of upgrading or adapting an existing building to that of constructing a new building, due allowance – in addition to the building cost – must be made for the costs of relocating people, demolition, salvage, disruption of services in a phased project, and the temporary effects on running costs of any impaired functioning of areas of the building affected by the upgrading works.

5.9 The cost of upgrading work should conform to the guidelines which were originally promulgated in the Department's WKO letter (81) 4, and more recently referred to in Volume 4 of the NHS Estates 'Quarterly Briefing'. Those guidelines take into consideration the estimated life of the existing building and the difference in cost between upgrading a building and constructing a new building.

Environment and design

5.10 Designers should create an environment in primary healthcare centres and local healthcare resource centres that will help patients feel at ease, be conducive to efficient working, and contribute to staff morale. Particular note should be taken of 'Health Buildings in the Community' (Estatecode), but reference should also be made to 'Demonstrably Different', 'First impressions, lasting quality', 'Environments for quality care' and 'Changing perspectives'.

5.11 External landscaping is often of special value. The design process should also include the choice of well-designed furniture and fittings and co-ordination of carpets and colour.

Art in health buildings

5.12 Works of art and craft can make a significant contribution towards the required standard of the interior of centres: this need not be limited to the conventional hanging of pictures on a wall. Every opportunity should be taken to include works by artists and craftspeople in appropriate spaces in centres. These may include paintings, murals, prints, photographs, sculptures, decorative tiles, ceramics, textile hangings and furniture.

5.13 Often it is works of art and craft which lend special identity to a waiting area or recovery room, and which help give a sense of locality.

5.14 Advice should be sought from experts on:

a. obtaining grants. In some cases, Regional Arts Boards or charitable trusts with a local interest may offer grants to add money within a capital scheme which is set aside for art or craft works. The Royal Society of Arts offers bursaries for collaborations between architects and artists;

b. obtaining sponsorship. Local industries may see an advantage in supporting an arts project as a way of reaching a wide, or particular, audience;

c. ensuring quality in all art and craft works;

d. appropriately locating art and craft works;

e. selecting artists and craftspeople.

Courtyards

5.15 Courtyards enable more rooms to receive natural daylight and ventilation, and provide an outlook which can compensate for the lack of a longer view. Suitable layout and planting can help to preserve privacy in surrounding rooms. Ground-cover planting is preferred to grass as it is often more successful and is easier to maintain.

5.16 Access for maintenance should be from a corridor so that patients and staff are not disturbed. Staff should take care to ensure that they do not intrude on patient privacy when entering a courtyard.

5.17 Reference should be made to HBN 45 – 'External works for health buildings', for more detailed guidance on this subject.

Natural and artificial lighting

5.18 Sunlight enhances colour and shape, and helps to make a room bright and cheerful. The harmful effects of solar glare can be dealt with by architectural detailing of window shape and depth of reveals, as well as by installing external and internal blinds and curtains.

5.19 Wherever possible, spaces to be occupied by patients, escorts or staff should have natural daylight with an outside view. Natural lighting is important to the well-being of patients. (However, the need for privacy should also be taken into account – see paragraph 3.39.)

5.20 Artificial lighting, as well as providing levels of illumination to suit activities, can make an important contribution to interior design. Designers should develop a lighting scheme that will help to promote a high quality image of the services being offered and a non-clinical, soft environment in as many spaces as possible. Levels of artificial light can also easily be varied by the use of dimmer switches.

5.21 Artificial lighting provided in spaces occupied by patients should enable any changes to skin tone and colour to be clearly defined and easily identified (see also paragraphs 6.49 to 6.60).

5.22 Fixed luminaires should not be sited immediately above positions where patients lie on a couch or a trolley. This applies to all spaces where patients are consulted, examined and treated.

Telephones

5.23 Telephones should be provided in accordance with the needs of the centre. Ringing telephones in and adjacent to consultation/examination/treatment spaces are a particular nuisance at any time, and consideration should be given to the installation of a telephone system which will enable any incoming calls to be intercepted at an appropriate location – for example, the reception desk at a health centre.

5.24 Unnecessary or abortive staff movement can be reduced by the provision of an intercommunication system; this should utilise the standard telephone network, be simple to use, and cover all locations of high staff activity. Such a system can accommodate a wide range of functions, both routine and emergency, and can enable staff to communicate rapidly when they require assistance. For example, the facility can be used for emergency calls for assistance in cases of clinical need or potentially violent

incidents, where the patient cannot be left alone. The facility can also be used to contact another department easily and quickly, or to locate a member of staff elsewhere in the centre.

5.25 Public telephones will be required for the use of patients, their escorts and visitors, preferably in a convenient and accessible location in, or near to, the main entrance and/or waiting area (see paragraph 4.10). Reference should be made to paragraph 3.45 above with regard to the provision of public telephones for disabled people. Further guidance is contained in HBN 48 – 'Telephone services'.

Internal environmental engineering considerations

Internal rooms

5.26 Internal rooms may contribute to economy in planning. If, however, additional artificial lighting and ventilation are required, both capital and running costs are likely to be increased.

5.27 Use of internal rooms should be limited to activities which:

a. need a controlled environment; or
b. are carried out intermittently by different individuals – for example, circulation areas and some storage areas.

5.28 Rooms that are likely to be occupied for any length of time by a patient, an escort or a member of staff should have natural light.

Ventilation

5.29 Natural ventilation is preferred unless there are internal spaces or clinical reasons that call for mechanical ventilation or comfort-cooling systems.

5.30 Mechanical ventilation and comfort-cooling systems are expensive in terms of capital and running costs; planning solutions should be sought which take maximum advantage of natural ventilation. Mechanical ventilation costs can be minimised by ensuring that, wherever practicable, core areas are reserved for rooms whose function requires mechanical ventilation irrespective of whether their location is internal or peripheral (for example, sanitary facilities and dirty utility rooms).

Noise and sound attenuation

5.31 Any unwanted sound is a noise and may disturb patients and staff. Noise-sensitive areas should be located as remotely as possible from internal and external sources of unavoidable noise.

5.32 Speech privacy is essential in spaces where personal and confidential discussions are held, such as interview rooms and consulting/examination/treatment spaces; it should not be possible to overhear any discussions taking place in adjoining spaces.

5.33 Particular care should be taken where the adjoining spaces are waiting areas.

5.34 Sound transmission can be reduced by use of sound-attenuating partitions and doors. Use of soft floor-coverings, provision of curtains and acoustic treatment of walls and ceilings (where hygienically acceptable) will improve sound absorption in a space.

Finishes

5.35 The quality of finishes in all areas should be of a high standard; the cost allowance makes due recognition of this need. Guidance on the selection of finishes is provided in the relevant HTMs.

5.36 Finishes should be robust enough to withstand accidental impact, and additional protection should be provided at likely points of contact. Trolleys and items of mobile equipment which may cause damage should be appropriately buffered.

Colour

5.37 The colours of surfaces in spaces occupied by patients should not distort the colour rendering of light sources. It must be possible to clearly define and easily identify any changes to a patient's skin tone and colour (see also paragraphs 5.21 and 6.49 to 6.60). Decor colours should be light and pleasant.

Floors

5.38 Floor coverings and skirtings should contribute to the provision of a non-clinical environment, yet at the same time, be hardwearing. They must not present a hazard to disabled people, nor should they restrict the movement of wheeled equipment. Floors should not be (nor appear to be) slippery, and the floor patterning should not induce disorientation. Changes of floor level should be avoided wherever possible. Surface drag, static electricity, flammability, infection hazards and impermeability to fluids have also to be considered. HTM 61 – 'Flooring', should be consulted for advice on user requirements and performance selection.

5.39 Finishes should be appropriate for the activities to be carried out, restricted in variety for ease of cleaning, and compatible with agreed cleaning routines.

Doors and frames

5.40 Doors and frames are particularly liable to damage from mobile equipment, and materials which will withstand this should be used. All double swing-doors should incorporate clear glass vision panels, but privacy, safety or other considerations may require that the panels should be capable of being obscured. Where necessary, doors should be capable of being fastened in the "open" position. Magnetic door retainers should not restrict the movement of traffic.

Windows

5.41 In addition to the various statutory requirements, the following aspects require consideration: illumination and ventilation; insulation against noise; user comfort; energy conservation; the prevention of glare; the provision of a visual link with the outside world. Windows should have a pleasant outlook if possible.

5.42 Design should ensure that it is possible for cleaners to have easy access to the inside and outside of windows. Guidance on types of windows and on the safety aspects is available in HTM 55 – 'Windows'.

Maintenance and cleaning

5.43 Materials and finishes should be selected to minimise maintenance and be compatible with their intended function. Building elements that require frequent redecoration or are difficult to service or clean should be avoided. Special design consideration should be given to corners, partitions, counters and other elements which may be subjected to heavy use. Wall coverings should be chosen with cleaning in mind. Guidance on these aspects is given in HTM 56 – 'Partitions', HTM 58 – 'Internal doorsets', and HTM 61 – 'Flooring'.

5.44 In liaison with local authorities, consideration may need to be given to the provision of a dedicated bin store.

Smoking

5.45 NHSME circular HSG(92)41, 'Towards smoke-free NHS premises', promulgated Government policy set out in the 'Health of the Nation' White Paper, and required NHS authorities and provider units to implement policies so that the NHS became virtually smoke-free by 31st May 1993. The circular advises that a limited number of separate smoking rooms should be provided, where necessary, for staff and for patients who cannot stop smoking.

5.46 No provision has been made in this Note for staff or patients who wish to smoke.

6.0 Engineering services

Introduction

6.1 This chapter describes the engineering services contained within self-contained primary healthcare and local healthcare resource centres. The centres are assumed to stand alone and not on hospital sites. The guidance should acquaint the engineering members of the multi-disciplinary design team with the criteria and material specifications needed to meet the functional requirements.

Model specifications

6.2 The National Health Service Model Engineering Specifications are sufficiently flexible to reflect local needs. The cost allowance is based on the quality of material and workmanship described in the relevant parts of the specifications.

Economy

6.3 Engineering services are a significant proportion of the capital cost, and remain a continuing charge on revenue budgets. The project design engineer should therefore ensure:

a. economy in initial provision, consistent with meeting functional requirements and maintaining clinical standards;

b. optimum benefit from the total financial resources these services are likely to absorb during their lifetime.

6.4 Where alternative design solutions are available, the consequential capital and running costs should be compared using the discounting techniques described in the Capital Investment Manual (England and Wales; for Scotland, see 'Health Building Procurement in Scotland').

6.5 The economic appraisal of alternative locations and design solutions should include heat conversion and distribution losses.

6.6 If a building management system (BMS) is not included, the design should be suitable for subsequent integration with a future BMS.

6.7 In view of the increasing cost of energy, the project team should consider the economic viability of heat recovery systems. Designers should ensure that those services which use energy do so efficiently.

Activity Data

6.8 Environmental and engineering technical data and equipment details are described in the Activity Data Sheets which are listed in Chapter 8. They should be referred to for space temperatures, lighting levels, outlets for power, telephones, equipment details, etc.

Safety

6.9 Section 6 of the Health and Safety at Work etc Act 1974, as amended by Schedule 3 of the Consumer Protection Act 1987, imposes statutory duties on all persons who design, manufacture, import, supply, install or erect "articles for use at work". One of the requirements of this Section is to ensure, so far as is reasonably practicable, that the article is designed and constructed so that it will be safe and without risks to health at all times when it is being set, used, cleaned or maintained by a person at work. All parts of engineering systems are covered by the term "articles for use at work".

Fire safety

6.10 The project team should familiarise themselves with the guidance in the Firecode series of documents (England and Wales; or Firecode in Scotland (Scotland)), which contains the Department's policy and technical guidance on fire safety in healthcare premises. In addition, the Fire Practice Note series provides guidance on specialist aspects of fire precautions. (A full list of Firecode documents is provided in the References section at the end of this Note.) In particular, the need for structural fire precautions and means of escape from the whole accommodation must be taken into account at the earliest possible planning stage. For buildings where the means of escape guidance in Firecode is not applicable, additional guidance is provided by BS5588: Part 8, Code of Practice for means of escape for disabled people. Other key documents are Firecode Health Technical Memorandum 81 – 'Fire precautions in new hospitals' and its Supplement 1.

6.11 It is important to establish during the design stage those aspects of fire safety strategy which affect the design, configuration and structure of a project. At appropriate stages of the design process, the architect and engineer should discuss and verify their proposals with the local fire authority, and ensure that the project team and all other planning staff are fully acquainted with the fire safety strategy for the design in terms of operation (staff responsibilities, etc), equipment provision, and building and

engineering layouts. Health Technical Memoranda 57 to 60 give detailed information for the selection of fire-resistant building components.

Noise

6.12 Excessive noise and vibration from engineering services, whether generated internally or externally and transmitted to individual areas, or noise from other sources, for example speech which can be transmitted by the ventilation system, can adversely affect the operation efficiency of the centre and cause discomfort to patients and staff. The limits and means of control advocated in Hospital Design Note 4, including its revisions and the means of control contained in Engineering Data Sheet DH1, should provide an acceptable acoustic environment.

Space for plant and services

6.13 Space for plant and services should provide:

a. easy and safe means of access, protected as far as possible from unauthorised entry;

b. for frequent inspection and maintenance. Sufficient access panels should be provided for this purpose;

c. for eventual removal and replacement of plant.

6.14 Recommended spatial requirements for mechanical, electrical and public health engineering services are contained in HTM 2023. The information in this HTM is specifically intended for use during the initial planning stages when precise dimensional details of plant are not available.

6.15 The distribution of mechanical and electrical services to final points of use should, wherever possible, be concealed in walls and above ceilings. Heat emitters should be contained within a 200 mm-wide perimeter zone under window sills, and critical dimension should be taken from the boundary of this zone.

6.16 The 200 mm zone includes the floor area occupied by minor vertical engineering ducts, and is included in the building circulating allowance.

6.17 Services contained in the space above the false ceiling, with the exception of drainage, should be confined to those required for the centre.

Access to control and isolation devices

6.18 Devices for the control and safe isolation of engineering services should be:

a. located in circulation areas rather than in working areas;

b. protected against unauthorised operation;

c. clearly visible and accessible, where intended for operation by the centre's staff.

Engineering commissioning

6.19 The engineering services should be commissioned in accordance with the validation and verification methods identified in the latest editions of the relevant HTMs. Engineering services for which a specific HTM is not currently available should be commissioned in accordance with HTM 17 – 'Health building engineering installations'; this HTM also describes the requirements which should be included in the contract documents. Flow measurement and proportional balancing of air and water systems require adequate test facilities to be incorporated at the design stage. Guidance is also contained in a series of commissioning codes published by the Chartered Institute of Building Services Engineers (CIBSE).

MECHANICAL SERVICES

Heating, hot water and ventilation plant

6.20 A plantroom with external access for equipment and maintenance personnel will be required, to accommodate boilers, hot water storage calorifiers, ventilation plant and ancillaries. Its size will be determined by the size of the centre.

6.21 Boilers will usually be gas-fired, and a separate space will therefore be required for the gas meter. If, however, gas is not available, space will be required for the storage of fuel.

6.22 Spaces heated by low pressure hot water systems should use radiators of the low surface temperature type. Surface temperatures should not exceed 43°C. Exposed hot water pipework, accessible to touch, should be insulated. Further information is given in Health Guidance Note – '"Safe" hot water and surface temperatures'.

6.23 Radiators should normally be located under windows or against exposed walls, with sufficient clear space between the top of the radiator and the window sill to prevent curtains reducing the heat output. There should be adequate space underneath to allow cleaning machinery to be used. Where a radiator is located on an external wall, back insulation should be provided to reduce the rate of heat transmission through the building's fabric.

6.24 All radiators should be fitted with thermostatic radiator valves. These should be of robust construction, and selected to match the temperature and pressure characteristics of the heating system. The thermostatic

head, incorporating a tamper-proof facility for pre-setting the maximum room temperature, should be controlled via a sensor, located integrally or remotely as appropriate. To provide frost protection at its minimum setting, the valve should not remain closed below a fixed temperature.

6.25 Radiators may also be used to offset building fabric heat loss in mechanically ventilated spaces.

6.26 The flow temperature to heating appliances may also be modulated in accordance with the external ambient temperature.

6.27 Heating throughout the unit should be controlled by the BMS to "set back" temperatures to 10°C during "out-of-use" hours. A manual override should promptly restore all plant to full operational status.

Ventilation (general)

6.28 Wherever possible, spaces should be naturally ventilated, but some areas will require mechanical supply and/or extract for clinical and/or functional reasons.

6.29 Air movement induced by mechanical ventilation should be from "clean" to "dirty" areas (where these can be defined). The design should allow for adequate flow of air into any space having only mechanical extract ventilation, via transfer grilles in doors or walls. Such arrangements, however, should avoid the introduction of untempered air, and should not prejudice the requirements of fire safety or privacy.

6.30 Mechanical ventilation should ensure that both supply and extract systems are in balance, taking due account of infiltration where appropriate.

6.31 Fresh air should be introduced via a low-velocity system, and should be tempered and filtered before being distributed via high-level outlets. Diffusers and grilles should be located to achieve uniform air distribution within the space without causing discomfort to patients.

6.32 A separate extract system will be required for "dirty" areas (for example, utility rooms and toilet facilities). It should operate continuously throughout the day and night. A dual motor fan unit with an automatic changeover facility should be provided.

6.33 External discharge arrangements for extract systems should be protected against back pressure from the effects of adverse wind velocity, and should be located to avoid the reintroduction of exhausted air into this or any adjacent building through air intakes and windows.

6.34 The ventilation system should be controlled by the BMS so that it is turned off during "out-of-use" hours. This system should also have a manual override, in order to restore all plant to full operational status at short notice.

6.35 Further detailed guidance is contained in HTM 2025 – 'Ventilation in healthcare premises'.

Ventilation (substances hazardous to health)

6.36 Local exhaust ventilation will be required where exposure by inhalation of substances hazardous to health cannot be controlled by other means. The Health and Safety Executive, in its current publication EH40/94, Occupational Exposure Limits 1994 (updated annually), sets limits which form part of the Control of Substances Hazardous to Health Regulations 1994 (COSHH). For example, the occupational exposure standard (OES) for glutaraldehyde is currently 0.2 ppm. Safety Action Bulletin (SAB)(92)17 also contains guidance on the "use and management of glutaraldehyde solutions".

Cold water storage

6.37 Cold water storage will be determined by the size of the centre, and accommodation at high level will be required for the storage tanks.

Hot and cold water services

6.38 The domestic hot water supply should be taken from the calorifier installation at a minimum outflow temperature of 60°C ± 2.5°C and distributed to all outlets such that the return temperature at the calorifier is not less than 50°C. Reference should be made to Health Guidance Note '"Safe" hot water and surface temperatures'.

6.39 The requirements for the control of legionellae bacteria in hot and cold water systems are set out in HTM 2040.

6.40 All cold water pipework, valves and fittings should be economically insulated and vapour-sealed to protect against frost, surface condensation and heat gain.

6.41 Further guidance on the design and installation of hot and cold water supply and distribution systems is contained in HTM 2027.

Piped medical gases

6.42 Guidance on piped medical gas systems, where required, is contained in HTM 2022.

ELECTRICAL SERVICES

Electrical installation

6.43 The installation should comply in all respects with BS7671, 'Requirements for Electrical Installations', and HTM 2007.

6.44 The point of entry for the electrical supply should be a switchcupboard, housing the main isolators and distribution equipment. This space will also be the distribution centre for subsidiary electrical services. Whenever possible, equipment should be mounted at a height which gives easy access from a standing position. Switchgear should be lockable in the "off" position.

6.45 The electrical installation in occupied areas should be concealed using PVC insulated cable and screwed steel conduit or trunking, but in certain circumstances mineral insulated metal-sheathed cables may be necessary. External installations should use PVC insulated cables in galvanised screwed steel conduit with waterproof fittings.

Electrical interference

6.46 Care should be taken to avoid mains-borne interference and electrical radio frequency interference affecting physiological monitoring equipment, computers and other electronic equipment used here or elsewhere on the site.

6.47 Guidance on the avoidance and abatement of electrical interference is contained in HTM 2014.

6.48 Fluorescent luminaires should comply with BS5394.

Lighting

6.49 The lighting of the entrance canopy should draw attention to its location. Colour finishes and lighting throughout the centre should be coordinated to create a calm and welcoming atmosphere. Further guidance on these and other aspects of lighting is contained in the CIBSE Lighting Guide LG2, 'Hospitals and Health Care Buildings'.

6.50 Architects and engineers should collaborate to ensure that the decorative finishes used are compatible with the colour-rendering properties of the lamp(s), and that the spectral distribution of the light source is not adversely affected.

6.51 Luminaires should be manufactured and tested in accordance with the requirements specified in the relevant sections of BS4533. Their location should afford ready access for lamp changing and maintenance, but with the overriding requirement that the recommended standard of illuminance is provided to the task area.

6.52 The number and location of luminaires connected to a circuit, and the number of switches and circuits provided, should allow flexibility in the general and local level of illumination, particularly in areas away from windows where daylight can vary significantly. Project teams may wish to consider the provision of automatic/presence switching in areas of the centre which may be unoccupied for long periods.

6.53 Generally, luminaires should be fitted with fluorescent lamps. Intermittently- and infrequently-used luminaires may be fitted with compact fluorescent or incandescent lamps.

6.54 Examination room lighting should be supplemented by an adjustable ceiling- or wall-mounted examination luminaire to provide flexible coverage for examination purposes.

6.55 Mobile examination luminaires, where provided, should operate at extra low voltage, be totally enclosed, and be equipped with a heat filter. The temperature of external surfaces should be such as to avoid injury to patients and staff.

6.56 A minor operating theatre table luminaire will be required in the major treatment room.

6.57 The lighting in the major treatment room, whether ceiling- or wall-mounted, should be provided with low-capacity batteries and a changeover contactor, in order that a "combined" supply to these fittings may be maintained, in accordance with HTM 2011 – 'Emergency electrical services' (see also paragraph 6.71 below).

6.58 Where visual display terminals are to be used, the lighting should be designed to avoid any bright reflections on the screen, and should ensure that the contents of the screen are legible. Further guidance is contained in the CIBSE Lighting Guide LG3.

6.59 The lighting of corridors, stairways and other circulation areas, which generally are not covered by Activity Data Sheets, should be designed in accordance with the guidance contained in HBN 40 – 'Common activity spaces'.

6.60 Safety lighting should be provided on primary escape routes, in accordance with HTM 2011 and BS5266.

Socket-outlets and power connections

6.61 A sufficient number of 13-amp switched and shuttered socket-outlets, connected to ring or spur circuits, should be provided, to supply all portable appliances which are likely to be used simultaneously. The installation of twin outlets should be considered wherever activities occur in juxtaposition.

6.62 To enable domestic cleaning appliances with flexible leads (nine metres long) to operate over the whole of the centre, switched socket-outlets should be provided in corridors, also in individual rooms where considered necessary.

6.63 Appliances requiring a three-phase supply, or those rated in excess of 13-amp single phase, should be permanently connected to separate fused sub-circuits. The sub-circuits should be fed from the distribution board and terminate at a local isolator. Fixed appliances, less than 13-amp rating, should be permanently connected to a double-pole switched 13-amp spur outlet. The spur outlet should contain an indicating light where appropriate, and a suitable fuse.

6.64 Isolation switches should be provided adjacent to all engineering plant and equipment, for use by maintenance staff.

6.65 Heating appliances and automatic equipment should have indicator lights to show when they are energised. Such indicators should be contained in the control panel of the apparatus, in the control switch, or in the socket-outlet from which the apparatus derives its supply.

6.66 Where feasible, all socket outlets in consultation/examination/treatment areas should be connected in such a manner that a supply is available from at least two separate circuits of the same phase.

6.67 Socket-outlets should be connected to essential circuits in accordance with the guidance contained in HTM 2011.

6.68 Guidance on building and engineering accommodation for radiodiagnostic equipment is contained in HBN 6 – 'Radiology department'.

6.69 Advice on the power supply and requirements for fixed and mobile radiodiagnostic equipment is contained in HTM 2007.

6.70 The electrical supply connections to all medical electrical equipment should comply with BS EN 60 601-1-2 (1993).

Emergency electrical supplies

6.71 Where the centre contains a major treatment room, a standby generator should be provided.

6.72 Guidance on emergency electrical services is contained in HTM 2011.

Controlled Drugs cupboard

6.73 A red indicating lamp should be provided on the Controlled Drugs cupboard (and, where appropriate, outside the doorway to the room in which the cupboard is located), also at a separate location which is continuously staffed. The lamps should be interlocked with the cupboard and alarm system, to give visual and audible indication at the continuously staffed location of any unauthorised entry to the cupboard.

6.74 An indicating lamp, denoting that the circuit is energised, should also be fitted to each cupboard. The supply circuits for the lamps and the alarm system should be derived from essential circuits. The cupboards should comply with BS2881. Further information is contained in HTM 63. More general information is contained in the 'Concode' series of documents.

Security systems

6.75 The centre should be protected during "out-of-use" hours by a burglar alarm system which complies with BS4737, BS7042 or BS5979 as appropriate.

6.76 The main entrance should at all times be well lit. In addition, the provision of closed-circuit TV at the main entrance may be useful if sightlines are obscured outside the building, also to enable access points to staff-only spaces to be kept in view. Panic buttons, or other systems for summoning assistance, should be provided for emergency use.

6.77 Further guidance on aspects of building and staff security is contained in the NHS Security Manual - NAHAT, 1992.

Patient-to-staff call system

6.78 Patient-to-staff call points should be provided in all spaces where patients may be left alone temporarily - for example, WCs.

6.79 Further guidance is contained in HTM 2015.

"Next patient" call system

6.80 "Telephone voice paging" public address systems may be relatively expensive, and therefore a simple self-contained public address system, or a "next patient" visual/buzzer system, may be more suitable. Any system adopted should take due account of the needs of visually-impaired people and of those patients whose first language is not English. Patients often prefer a member of staff to come and collect them, however.

Telephone services

6.81 Telephone calls to the centre should be routed through the reception desk.

6.82 Coin- and/or phonecard-operated payphones should be provided in the main entrance, depending on local policy. These payphones should be located to ensure the caller a reasonable degree of privacy – for example, in callboxes – or else a hood should be fitted above the telephone apparatus. In addition, public telephone facilities should be sufficiently accessible to be used easily by people with disabilities.

6.83 Further guidance on telephone systems is contained in HBN 48 – 'Telephone services', and HTM 2055 – 'Telecommunications (Telephone exchanges)'.

Data links

6.84 Conduits will be required for cables to interconnect electronic equipment. The extent to which these conduits should link all workstations within the centre and elsewhere will depend on the local policy for automatic data processing (see paragraphs 2.12 to 2.15 above).

Clocks

6.85 Clocks may be of impulse, synchronous or battery/quartz type. Any clocks which are sited in clinical areas should have a sweep second-hand. Clocks should be installed only where they can be viewed by a majority of the staff, patients or visitors at that particular location.

Music/radio and television

6.86 Conduits for television/video and background music/radio system outlets should be provided in the main waiting areas and group rooms, where indicated on Activity Data Sheets.

Lightning protection

6.87 Protection of the building against lightning should be provided in accordance with HTM 2007 and BS6651 (1992).

INTERNAL DRAINAGE

General

6.88 The primary objective is to provide an internal drainage system which:

a. uses the minimum of pipework;

b. remains watertight and airtight at joints and connections;

c. is sufficiently ventilated to retain the integrity of water seals.

Design parameters

6.89 The general design of the centre's drainage system should comply with the relevant British Standards and Codes of Practice, including BS5572 and the current building regulations. Recommendations for spatial and access requirements for public health engineering services are contained in Engineering Data Sheet EA5.

6.90 The gradients of branch drains should be uniform and adequate to convey the maximum discharge to the stack without blockage. Practical considerations, such as available angles of bends, junctions and their assembly, as well as space considerations, usually limit the minimum gradient to about 1:50 (20 mm/m). For larger pipes, for example those with a diameter of 100 mm, the gradient may be less, but this will require workmanship of a high standard if an adequate self-cleaning flow is to be maintained. It is not envisaged that any pipes with a diameter larger than 100 mm will be required within inter-floor or ground floor systems serving a centre.

6.91 Provision for inspection, rodding and maintenance should ensure "full bore" access, and be located to minimise disruption or possible contamination. Manholes should not be located within the centre's buildings.

7.0 Cost information

Introduction

7.1 For all types of health building, it is important that building costs and revenue expenditure are kept as low as possible and as is consistent with acceptable standards. In applying the guidance in this document to determine a detailed design, the need for economy should always be of prime concern, and the activities should be carefully considered so that, where appropriate, space can be shared for similar activities which are programmed to take place at different times. The solution adopted should neither be detrimental to the proper functioning of the spaces involved nor to the needs of the users. Within this general context, Health Building Notes provide a synopsis of accommodation for health buildings which the Department of Health recommends for the provision of a given service.

Departmental Cost Allowance Guides

7.2 Departmental Cost Allowance Guides (DCAGs) related to this Note are officially notified in 'Quarterly Briefing', published by NHS Estates. A full listing of all DCAGs is available via Concise 4 database. For those who do not have access to the Concise suite computer software, a hard-copy listing of Concise 4, together with guidance notes, can be obtained from NHS Estates. Further information on this can be obtained from NHS Estates, telephone (0113) 254 7000.

7.3 The attention of the project team is drawn to guidance given in the Capital Investment Manual (Business Case Guide) (England and Wales; for Scotland, see 'Health Building Procurement in Scotland' guidance). This publication seeks to reflect the important changes that have taken place over recent years, both with the introduction of the NHS reforms and with the changing patterns of healthcare delivery. This new process is intended to reduce unnecessary and often expensive planning work which may subsequently prove to be abortive, and emphasises the necessity for a sound business case in support of the capital expenditure involved. The Capital Investment Manual states that the Capital Works estimate of capital costs must be based on, where applicable, industry norms such as the DCAGs plus a percentage to cover for on-costs.

7.4 The DCAGs for this Note reflect the total accommodation related to a stand-alone newbuild primary healthcare centre and local healthcare resource centre, with a small element of two-storey build, on a greenfield site standing alone in its own grounds with no planning constraints. Some reduction in space requirement should be possible if the centre is built in the grounds of other health buildings where the sharing of common spaces and engineering services may be feasible.

7.5 The DCAGs for this Note also cover the building and engineering requirements. It is important to bear in mind that primary healthcare centres and local healthcare resource centres would not normally be expected to attract "Communications" allowances, but an element for external works, external engineering services and abnormals would be envisaged - costs are not included in the DCAGs for these. (See also paragraph 7.20 below.) The abnormals will largely be determined by the characteristics of the site, such as an inner-city location, or the condition and type of the existing building if refurbishment is the only option.

7.6 It is also important that project teams assess at the earliest opportunity all the likely on-cost implications of individual sites and schemes.

7.7 DCAGs are exclusive of VAT, building and planning fees and all local authority charges, and are based on a locational factor of 1.

Locational factors

7.8 Locational factor adjustments may be applied to the works costs (that is, the total of the DCAGs plus the requisite on-costs) to take into account the local market conditions. For further information regarding these, please refer to the regional location factors in 'Quarterly Briefing'.

Functional units

7.9 The functional unit for the primary healthcare centre is three, six or nine general medical practitioners (GPs) using the facilities. The activity spaces and areas used for costing the functional units are listed in the schedules of accommodation at the end of this chapter.

7.10 The functional units for the local healthcare resource centre are as follows:

Main/core activity	three, six or nine consulting rooms
Radiodiagnostics	one combined radiodiagnostic room
Pathology	one laboratory
Chiropody/podiatry	one or two chiropodists
Community psychiatric services	two or four community psychiatric nurses

Social services	two or four social workers
Physiotherapy	1500, 3000 or 4500 patients per year
Occupational therapy	six or twelve patients per session
Speech therapy	one therapy room
Dental services	one surgery
Community pharmaceutical services	one pharmacist
Community optician	one optician

Essential complementary accommodation (ECA)

7.11 Essential complementary accommodation (ECA) comprises activity spaces which are essential to the running of a local healthcare resource centre, but which in certain circumstances may be available in a convenient location elsewhere in the centre. The ECA spaces costed in this Note are listed in the schedules of accommodation at the end of this chapter.

Optional accommodation and services (OAS)

7.12 This Note draws attention in primary healthcare centres and local healthcare resource centres to areas of accommodation considered to be project options for providing services or facilities, including the likely cost implications. This information will enable the project team to select the most appropriate design solution. The optional accommodation and services (OAS) spaces costed in this Note are listed in the schedules of accommodation at the end of this chapter. The schedules include an allowance for plant space where indicated.

Dimensions and areas

7.13 In determining spatial requirements, the essential factor is not the total area provided but the critical dimensions – that is, those dimensions critical to the efficient functioning of the activities that are to be carried out. To assist project teams in preparing detailed design solutions for the rooms and spaces, studies have been carried out to establish dimensional requirements in the form of critical dimensions. The results of these studies appear as ergonomic diagrams in HBN 40 – 'Common activity spaces' (Volumes 1-4).

7.14 For development planning, and at the earliest stage of a design, it may be convenient for designers to have data available which will enable them to make an approximate assessment of the sizes involved. For this reason, the areas prepared for the purpose of establishing the cost allowances are included at the end of this chapter.

7.15 It is emphasised that the areas published **do not** represent recommended sizes, nor are they to be regarded in any way as specific individual entitlements.

7.16 Another important factor affecting the area requirement is the timetabling of those services offered by both the primary healthcare centres and local healthcare resource centres. A centre that runs an efficient appointment system tends to require less space for waiting than one which does not. Also, a centre with a good operational policy which attempts to rationalise the use of clinical rooms for consultation, examination and interview, can function with fewer clinical rooms.

7.17 In the planning of an efficient design, it may be necessary to consider the variation of areas; for instance, in the refurbishment or conversion of older property:

a. rooms tend to be larger than the recommended area;

b. some rooms may be too small or in the wrong location for efficient use;

c. circulation space tends to form a larger than normal proportion of the total area.

Circulation

7.18 Space for circulation, as well as including space for all corridors, also includes a five percent allowance for planning, a three percent addition for an engineering zone adjacent to the external walls, all small vertical ducts and spaces occupied by partitions and walls. These areas are all included, and therefore costed, in the DCAGs.

7.19 It is also important to remember that the circulation figures included in the DCAGs for this Note are those anticipated for new, purpose-built premises with no constraints. Where constraints are encountered, for example in the refurbishment or conversion of older types of property, this circulation figure would be likely to increase accordingly, and it may therefore be necessary to make some adjustment to the circulation figure.

Communications

7.20 Staircases are included in the DCAGs relevant to this Note. A suitable allowance should be made in on-costs for any additional communications elements (for example, lifts, additional staircases, etc).

Land costs

7.21 As is the norm for DCAGs, costs are exclusive of all land costs and associated fees. However, the project team's attention is drawn to the fact that costs associated with these should be included in the Business Case Submission, as detailed in the Capital Investment Manual (see paragraph 7.3 above), and could therefore be an important part of the overall cost viability of the scheme.

Engineering services

7.22 The following engineering services, as described in the Chapter 6 above and exemplified in the Activity Data in Chapter 8 below, are included in the cost allowances. The building is assumed to stand alone, and not on a hospital site:

a. **Mechanical services:**

Boilers:	gas-fired boiler plant, calorifiers and ancillaries;
Heating:	low-pressure hot water system with thermostatic radiator control, maximum touch temperature 43°C;
Ventilation:	mechanical supply and extract to meet clinical and functional requirements of the unit (including plant);
Cold water service:	supplied from a central storage to service points, and includes drinking water and hose reels. Storage tanks are included;
Hot water service:	supplied from a central storage system. Storage is included;

b. **Electrical services:**

Main intake and distributions switchboard;

Lighting system:	general lighting, as required by tasks. Fluorescent, tungsten, safety and emergency luminaires as appropriate;
Power system:	socket outlets and other power outlets for fixed and portable equipment;
Standby generator	emergency electrical supplies where a major treatment room is included;
Alarm system:	fire, security and Controlled Drugs cupboard;

Clocks (wired system);

Patient-to-staff call system;

Patient call: "next patient" call system;

Telephones:	conduits, cabling and outlets, but excluding handsets, payphones, etc;
Data transmission:	conduits only;
Radio, TV and music:	conduits to relevant areas only;

c. **Equipment (Group 1):**

Water boiler (Pantry);

Dishwasher (Pantry);

Controlled Drugs cupboard (Clean utility room);

Washer-disinfectors (Dirty utility room).

Schedules of accommodation

7.23 The following schedules are based on the text in Chapters 3 and 4, and are illustrative of the acceptable accommodation for the functional units detailed.

7.24 Particular care will need to be exercised in determining both an intermediate size centre and for oversizing the centre for future likely usage, as the cost-rent scheme may not meet the full cost of the designed scheme.

Para no	Activity space	Space area sq m	3 GPs Qty	3 GPs Total area sq m	6 GPs Qty	6 GPs Total area sq m	9 GPs Qty	9 GPs Total area sq m
	PRIMARY HEALTH CARE CENTRES							
	Patient reception spaces							
4.7	Main entrance draught lobby	4.0	1	4.0	1	4.0	1	4.0
4.8	Reception desk		1	4.0	1	8.0	1	12.0
4.10	Main waiting area		1	19.5	1	39.0	1	58.5
4.11	Children's play area		1	7.5	1	10.0	1	15.0
4.12	Baby-buggy and pushchair bay	5.0	1	5.0	1	5.0	1	5.0
4.13	WCs for patients and escorts	2.5	2	5.0	2	5.0	2	5.0
4.14	Specimen WC	4.5	1	4.5	1	4.5	1	4.5
4.15	Nappy changing room	5.0	1	5.0	1	5.0	1	5.0
	Consulting, examination and treatment spaces							
4.17	Consulting/examination room	12.5	3	37.5	6	75.0	9	112.5
4.18	Sub-waiting area		1	5.0	1	10.5	2	10.5
4.19	Treatment room	17.5	1	17.5	2	35.0	2	35.0
4.20	Utility room	9.0	1	9.0	1	9.0	1	9.0
	Office accommodation							
4.22	Practice manager's office	12.5	1	12.5	1	12.5	1	12.5
4.23	General office – workstations		1	18.0	1	30.0	2	42.0
4.24	Records store and records office		1	12.0	1	24.0	1	36.0
	Facilities for staff							
4.26	Staff rest room/common room		1	17.0	1	28.0	1	28.0
4.27	Pantry	—	—	—	1	8.0	1	8.0
4.29	Staff WC	2.5	1	2.5	2	5.0	2	5.0
	Utility spaces and stores							
4.30	Storage (general)		1	7.0	1	13.0	1	19.0
4.31	Cleaners' room	6.0	1	6.0	1	6.0	1	6.0
4.33	Disposal room	3.0	1	3.0	1	3.0	1	3.0
	Switchcupboard		1	2.0	1	2.0	1	2.0
	Plantroom		1	4.0	1	7.0	1	9.0
				207.5		348.5		446.5
	Circulation			71.4		119.9		153.6
	Total			278.9		468.4		600.1
	Departmental area			280		470		600

Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
	Consulting, examination and treatment spaces			
4.35	Consulting/examination room/trainee GP	12.5	3.5	16.0
4.36	Interview room	12.5	3.5	16.0
4.37	Major treatment room	17.5	5.0	22.5
4.41	Recovery room	12.5	3.5	16.0
4.44	Clean utility room	4.0	1.0	5.0
4.46	Dirty utility room	6.0	1.5	7.5
4.47	Group room – small	20.0	5.5	25.5
4.47	Group room – large	40.0	11.0	51.0
4.50	Child assessment room	15.5	4.5	20.0
4.51	Dispensary	18.0	5.0	23.0
	Office accommodation			
4.53	Fund manager's office	12.5	3.5	16.0
4.54	Attached or practice nurse interview room	12.5	3.5	16.0
4.55	Community staff office	24.0	6.5	30.5
4.57	Social worker's office	9.5	2.5	12.0
4.58	General office – workstation	12.5	3.5	16.0
	Facilities for staff			
4.59	Seminar room – small	12.5	3.5	16.0
4.59	Seminar room – large	24.0	6.7	30.7
4.61	Staff shower	3.0	1.0	4.0
	Utility spaces and stores			
4.62	Loans store	12.5	3.5	16.0
4.49	Storage for group rooms	6.0	1.5	7.5
4.49	Storage for child assessment room	5.0	1.5	6.5

Local heathcare resource centre

Para no	Activity space	Space area sq m	3 C/E rooms Qty	3 C/E rooms Total area sq m	6 C/E rooms Qty	6 C/E rooms Total area sq m	9 C/E rooms Qty	9 C/E rooms Total area sq m
	MAIN ACTIVITY							
	Patient reception spaces							
4.7	Main entrance draught lobby		1	4.0	1	4.0	1	4.0
4.8	Reception desk	4.0	1	4.0	2	8.0	3	12.0
4.10	Main waiting area		1	23.5	1	39.0	1	58.5
4.11	Children's play area		1	7.5	1	10.0	1	15.0
4.12	Baby-buggy and pushchair bay	5.0	1	5.0	1	5.0	1	5.0
4.13	WCs for patients and escorts	2.5	2	5.0	2	5.0	2	5.0
4.14	Specimen WC	4.5	1	4.5	1	4.5	1	4.5
4.15	Nappy changing room	5.0	1	5.0	1	5.0	1	5.0
	Medical and surgical investigations & treatment spaces							
4.17	Consulting/examination room	12.5	3	37.5	6	75.0	9	112.5
4.36	Interview room	12.5	1	12.5	1	12.5	1	12.5
4.18	Sub-waiting area		1	6.5	1	13.0	1	13.0
4.19	Treatment room	17.5	1	17.5	2	35.0	2	35.0
4.37	Major treatment room	17.5	1	17.5	1	17.5	1	17.5
4.41	Recovery room	12.5	1	12.5	1	12.5	1	12.5
4.44	Clean utility	10.0	1	10.0	1	10.0	1	10.0
4.44	Dirty utility	10.0	1	10.0	1	10.0	1	10.0
	Office accommodation							
4.69	Manager's office	12.5	1	12.5	1	12.5	1	12.5
4.58	General office – workstations		1	12.5	1	18.0	2	24.0
	Facilities for staff							
4.26	Staff rest room/common room		1	17.0	1	28.0	1	28.0
4.27	Pantry	—	—	—	1	8.0	1	8.0
4.29	Staff WC	2.5	1	2.5	2	5.0	2	5.0
	Utility spaces and stores							
4.30	Store		1	7.0	1	13.0	1	19.0
4.31	Cleaners' room	6.0	1	6.0	1	6.0	1	6.0
4.33	Disposal room	3.0	1	3.0	1	3.0	1	3.0
	Switchcupboard		1	2.0	1	2.0	1	2.0
	Plantroom		1	6.0	1	11.0	1	14.0
				251.0		372.5		453.5
	Circulation			86.3		128.1		156.0
	Total			337.3		500.6		609.5
	Departmental area			335		500		610

General – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.8	Reception desk	4.0	1.0	5.0
4.18	Sub-waiting area	6.5	2.0	8.5
4.17	Consulting/examination room	12.5	3.5	16.0
4.17	Consulting/examination room	16.0	4.5	20.5
4.47	Group room – small	20.0	5.5	25.5
4.47	Group room – large	40.0	11.0	51.0
4.59	Seminar room – small	12.5	3.5	16.0
4.59	Seminar room – large	25.0	7.0	32.0
4.58	General office – workstations	12.5	3.5	16.0
4.61	Staff shower	3.0	1.0	4.0
4.13	WC for patients and escorts	2.5	0.5	3.0
4.14	Specimen WC	4.5	1.5	6.0
4.67	Beverage bay	4.0	1.0	5.0
4.36	Interview room	12.5	3.5	16.0
4.71	Staff change – male	15.0	4.0	19.0
4.71	Staff change – female	15.0	4.0	19.0

Radiodiagnostics

Para no	Activity space	1 Combined R/D room Space area sq m	Qty	Total area sq m
4.8	Reception desk	4.0	1	4.0
4.18	Sub-waiting area	8.0	1	8.0
4.74	Combined X-ray/ultrasound	30.0	1	30.0
4.78	Processing room	5.0	1	5.0
4.82	Store	11.0	1	11.0
4.84	Office	12.5	1	12.5
				66.5
	Circulation			18.6
	Total			85.1
	Department area			85

Radiodiagnostics – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.77	Ultrasound	16.0	4.5	20.5
4.76	X-ray room	30.0	8.5	38.5

Pathology

Para no	Activity space	Space area sq m	Qty	1 Laboratory Total area sq m
4.84	Laboratory	8.0	1	8.0
4.85	Store	3.0	1	3.0
				11.0
	Circulation			3.1
	Total			14.1
	Departmental area			15

Chiropody/podiatry

Para no	Activity space	Space area sq m	Qty	1 Chiropodist Total area sq m	Qty	2 Chiropodists Total area sq m
4.8	Reception desk			—	1	4.0
4.18	Sub-waiting area			6.5	1	13.0
4.86	Surgery	15.0	1	15.0	2	30.0
4.87	Store				1	1.0
				21.5		48.0
	Circulation			6.0		13.4
	Total			27.5		61.4
	Departmental area			30		60

Community psychiatric services

Para no	Activity space	Space area sq m	Qty	2 CPNs Total area sq m	Qty	4 CPNs Total area sq m
4.8	Reception desk			—	1	4.0
4.18	Sub-waiting area			—	1	6.5
4.88	Office	6.0	2	12.0	4	24.0
				12.0		34.5
	Circulation			3.4		9.7
	Total			15.4		44.2
	Departmental area			15		45

Community psychiatric services – Essential complementary accommodation

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.90	Interview room	12.5	3.5	16.0

Community psychiatric services – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.91	Group room – small	20.0	5.5	25.5
4.88	Office	12.5	3.5	16.0
4.92	Store	4.0	1.0	5.0

Social services

Para no	Activity space	Space area sq m	2 Social workers Qty	2 Social workers Total area sq m	4 Social workers Qty	4 Social workers Total area sq m
4.8	Reception desk	4.0		—	1	4.0
4.18	Sub-waiting area			—	1	6.5
4.57	Social worker's office	6.0	2	12.0	4	24.0
				12.0		34.5
	Circulation			3.4		9.7
	Total			15.4		44.2
	Departmental area			15		45

Social services – Essential complementary accommodation

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.90	Interview room	12.5	3.5	16.0

Social services – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.93	Group room	20.0	5.5	25.5
4.94	Office	12.5	3.5	16.0
4.95	Store	4.0	1.0	5.0

Physiotherapy

Para no	Activity space	Space area sq m	1500 patients/year Qty	1500 patients/year Total area sq m	3000 patients/year Qty	3000 patients/year Total area sq m	4500 patients/year Qty	4500 patients/year Total area sq m
4.8	Reception desk		1	6.0	1	8.0	1	8.0
4.18	Sub-waiting area			6.5	1	10.5	1	15.5
4.97	Patient changing		1	10.0	1	15.0	1	15.0
4.97	Treatment – cubicles	10.0	2	20.0	4	40.0	6	60.0
4.98	Exercise area		1	29.0	1	57.5	1	86.5
4.99	Store		1	6.0	1	12.0	1	18.0
				77.5		143.0		203.0
	Circulation			21.7		40.0		56.8
	Total			99.2		183.0		259.8
	Departmental area			100		185		260

Physiotherapy – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.100	Office	12.5	3.5	16.0

Occupational therapy

Para no	Activity space	Space area sq m	Qty	6 patients Total area sq m	Qty	12 patients Total area sq m
4.101	Activity area		1	20.5	1	41.0
4.102	Interview/treatment	12.5	1	12.5	1	12.5
4.103	Store	6.0	1	6.0	2	12.0
				39.0		65.5
	Circulation			10.9		18.3
	Total			49.9		83.8
	Departmental area			50		85

Occupational therapy – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.104	Office	12.5	3.5	16.0

Speech therapy

Para no	Activity space	Space area sq m	Qty	1 Therapy room Total area sq m
4.105	Therapy room	15.5	1	15.5
4.106	Store	8.0	1	8.0
				23.5
	Circulation			6.6
	Total			30.1
	Departmental area			30

Dental services

Para no	Activity space	Space area sq m	Qty	1 Surgery Total area sq m
4.107	Reception desk/office/records	10.0	1	10.0
4.108	Waiting area		1	6.5
4.109	Surgery	18.0	1	18.0
4.117	Recovery room		1	6.0
4.118	Store		1	3.5
				44.0
	Circulation			12.3
	Total			56.3
	Departmental area			55

Dental services – Optional accommodation and services

Para no	Activity space	Space area sq m	Circ'n etc sq m	Total area sq m
4.119	Laboratory/processing room	7.0	2.0	9.0
4.120	Surgery	16.0	4.5	20.5

Community pharmaceutical services

Para no	Activity space	Space area sq m	Qty	1 Pharmacist Total area sq m
4.121	Retail sales/waiting	11.0	1	11.0
4.122	Dispensary		1	12.5
4.127	Stock room		1	12.5
4.129	Office	12.5	1	12.5
				48.5
	Circulation			13.6
	Total			62.1
	Departmental area			60

Community optician

Para no	Activity space	Space area sq m	Qty	1 Optician Total area sq m
4.8	Reception desk	4.0	1	4.0
4.131	Waiting area	5.0	1	5.0
4.132	Consulting/examination room	12.5	1	12.5
4.136	Display area (frames)	5.0	1	5.0
4.137	Office	12.5	1	12.5
4.138	Store	6.0	1	6.0
				45.0
	Circulation			12.6
	Total			57.6
	Departmental area			60

8.0 Activity data

Introduction

8.1 "Activity data" is an information system developed to help project and design teams by defining the users' needs more precisely. This information constitutes the computerised Activity DataBase, updated twice yearly. It comprises three types of information sheet: activity space data sheets (known as A-Sheets), their supporting activity unit data sheets (known as B-Sheets) and A-Sheet component listings (known as D-Sheets).

8.2 A-Sheets record in more detail than is described in this Note each task or activity that is performed in a particular activity space (which may be a room, space, corridor or bay), together with environmental conditions and the technical data necessary to enable the activities to be performed. Each A-Sheet also contains a list of the titles and code numbers of the relevant B-Sheets.

8.3 B-Sheets provide narrative text and graphics to scale relating to one activity. They show equipment fitted or supplies as part of the building, and the necessary engineering terminals.

8.4 D-Sheets provide information about the total quantities of components (excluding those in Group 4 – see paragraph 1.14) extracted from all B-Sheets selected for inclusion in an individual A-Sheet.

8.5 Activity data is only available in the form of magnetic media, but this may be used to generate paper copies where required.

8.6 Further information about the use and preparation of activity data can be obtained from NHS Estates, Department of Health, 1 Trevelyan Square, Boar Lane, Leeds LS1 6AE.

Activity data applicable to this Note

8.7 The A-Sheets recommended for the activity spaces described in this Note are either new sheets, amended ones, or selected from existing sheets. A list of A-Sheet code numbers and titles is given at the end of this chapter.

8.8 Further activity data sheets may be selected, or drawn up by project teams to their own requirements, for any services not described in the Note or included in the list.

8.9 In order to ensure consistent and economic provision, variations from the A-Sheets recommended for the spaces covered in this Note should be considered only where it has been decided that the function of a space will differ substantially from that described.

Lists of activity data A-Sheets

8.10 The activity data A-Sheets listed below may not carry a title identical to the activity spaces detailed in this Note. Use of the appropriate A-Sheet code number will, however, result in the correct activity space being accessed.

8.11 The activity data A-Sheets are listed below in the same order as the spaces to which they relate are listed in the "Schedules of accommodation" (in Chapter 7 above).

8.12 Some of the A-Sheets listed below relate specifically to a medium-sized centre (that is, 6 GPs or 6 C/Es). For smaller or larger sizes of centre, the A-Sheets will need to be amended as appropriate.

Note The foregoing applies to the MS-DOS application only.

During the currency of this Note, an MS-Windows application is being introduced, with the following consequences:

A-Sheets are replaced by room data sheets.

B-Sheets are replaced by assemblies.

The term "D-Sheets" is omitted from component listings.

Activity space	A-Sheet code no	Paragraph no in HBN
PRIMARY HEALTHCARE CENTRE		
Patient reception spaces		
Main entrance draught lobby	J0106	4.7
Reception desk	J0206	4.8
Main waiting area	J1111	4.10
Children's play area	J1411	4.11
Baby-buggy and pushchair bay	G0131	4.12
WCs for patients and escorts	V1116	4.13
Specimen WC	V0906	4.14
Nappy changing room	J0703	4.15
Consulting, examination and treatment spaces		
Consulting/examination room	C0212	4.17
Sub-waiting area	J1204	4.18
Treatment room	X0125	4.19
Utility room	T0507	4.20
Office accommodation		
Practice manager's office	M0233	4.22
General office – workstations	M1014	4.23
Records store and records office	M1032	4.24

Activity space	A-Sheet code no	Paragraph no in HBN
Facilities for staff		
Staff rest room/common room	D0518	4.26
Pantry	P0602	4.27
Staff WC	V1005	4.29
Utility spaces and stores		
Storage (general)	W1530	4.30
Cleaners' room	Y1501	4.31
Disposal room	Y0610	4.33
Switchcupboard	K0101	
Plant room	K0701	
Optional accommodation and services		
Consulting, examination and treatment spaces		
Consulting/examination room/ trainee GP	C0212	4.35
Interview room	M0713	4.36
Major treatment room	X0240	4.37
Recovery room	B2505	4.41
Clean utility room	T0519	4.44
Dirty utility room	Y0415	4.46
Group room – small	H1101	4.47
Group room – large	H1102	4.47
Child assessment room	C0510	4.50
Dispensary	Z0110	4.51
Office accommodation		
Fund manager's office	M0233	4.53
Attached or practice nurse interview room	M0713	4.54
Community staff office	M0115	4.55
Social worker's office	M0219	4.57
General office – workstation	M1029	4.58
Facilities for staff		
Seminar room – small	H0507	4.59
Seminar room – large	H0520	4.59
Staff shower	V0801	4.61
Utility spaces and stores		
Loans store	W1113	4.62
Storage for group rooms	W1110	4.49
Storage for child assessment room	W1506	4.49

LOCAL HEALTHCARE RESOURCE CENTRE

Activity space	A-Sheet code no	Paragraph no in HBN
Patient reception spaces		
Main entrance draught lobby	J0106	4.7
Reception desk	J0206	4.8
Main waiting area	J1111	4.10
Children's play area	J1411	4.11
Baby-buggy and pushchair bay	G0131	4.12
WC for patients and escorts	V1116	4.13
Specimen WC	V0906	4.14
Nappy changing room	J0703	4.15
Medical and surgical investigations & treatment spaces		
Consulting/examination room	C0212	4.17
Interview room	M0713	4.36
Sub-waiting area	J1218	4.18
Treatment room	X0125	4.19
Major treatment room	X0240	4.37
Recovery room	B2505	4.41
Clean utility	T0509	4.44
Dirty utility	Y0408	4.44
Office accommodation		
Manager's office	M0233	4.69
General office – workstation	M1015	4.58
Facilities for staff		
Staff rest room/common room	D0518	4.26
Pantry	P0602	4.27
Staff WC	V1005	4.29
Utility spaces and stores		
Store	W1530	4.30
Cleaners' room	Y1501	4.31
Disposal room	Y0610	4.33
Switchcupboard	K0101	
Plantroom	K0701	
General – Optional accommodation and services		
Reception desk	J0205	4.8
Sub-waiting area	J1206	4.18
Consulting/examination room	G0212	4.17
Consulting/examination room	G0214	4.17
Group room – small	H1101	4.47
Group room – large	H1102	4.47
Seminar room – small	H0507	4.59
Seminar room – large	H0520	4.59
General office – workstations	M1029	4.58
Staff shower	V0801	4.61
WC for patients and escorts	V1116	4.13
Specimen WC	V0906	4.14
Beverage bay	P0703	4.67
Interview room	M0713	4.36
Staff change – male	V0517	4.71
Staff change – female	V0517	4.71
Radiodiagnostics		
Reception desk	J0205	4.8
Sub-waiting area	J1214	4.18
Combined X-Ray/ultrasound	E0115	4.74
Processing room	R0106	4.78
Store	W0305	4.82
Office	M0414	4.84

Activity space	A-Sheet code no	Paragraph no in HBN
Radiodiagnostics – Optional accommodation and services		
Ultrasound	E0116	4.77
X-ray room	E0117	4.76
Pathology		
Laboratory	L0415	4.84
Store	W0604	4.85
Chiropody/podiatry		
Reception desk	J0205	4.8
Sub-waiting area	J1206	4.18
Surgery	X0209	4.86
Store	W1533	4.87
Community psychiatric services		
Reception desk	J0205	4.8
Sub-waiting area	J1206	4.18
Office	M0221	4.88
Community psychiatric services – Essential complementary accommodation		
Interview room	M0705	4.90
Community psychiatric services – Optional accommodation and services		
Group room – small	H1103	4.91
Office	M0118	4.88
Store	W1549	4.92
Social services		
Reception desk	J0205	4.8
Sub-waiting area	J1206	4.18
Social Worker's Office	M0221	4.57
Social services – Essential complementary accommodation		
Interview room	M0713	4.90
Social services – Optional accommodation and services		
Group room	H1103	4.93
Office	M0118	4.94
Store	W1549	4.95
Physiotherapy		
Reception desk	J0206	4.8
Sub-waiting area	J1204	4.18
Patient changing	V0706	4.97
Treatment – cubicles	X0227	4.97
Exercise area	X0313	4.98
Store	W1225	4.99
Physiotherapy – Optional accommodation and services		
Office	M0118	4.100

Activity space	A-Sheet code no	Paragraph no in HBN
Occupational therapy		
Activity area	Q0507	4.101
Interview/treatment	Q0304	4.102
Store	W1222	4.103
Occupational therapy – Optional accommodation and services		
Office	M0118	4.104
Speech therapy		
Therapy room	X0119	4.105
Store	W1228	4.106
Dental services		
Reception desk/office/records	J0413	4.107
Waiting area	J1306	4.108
Surgery	L0904	4.109
Recovery room	B2507	4.117
Store	W1504	4.118
Dental services – optional accommodation and services		
Laboratory/processing room	L1205	4.119
Surgery	L0905	4.120
Community pharmaceutical services		
Retail sales/waiting	J1316	4.121
Dispensary	Z0112	4.122
Stock room	W0236	4.127
Office	M0118	4.129
Community optician		
Reception desk	J0205	4.8
Waiting area	J1305	4.131
Consulting/examination room	C0205	4.132
Display area (frames)	J0220	4.136
Office	M0118	4.137
Store	W1532	4.138

Appendix A – Main sizing guide

Primary healthcare centre

1. The functional unit of a primary healthcare centre is calculated on the number of GPs consulting at any one time (see Statement of Fees and Allowances) or the number of Full-Time Equivalent (FTE) GPs. The "Schedules of accommodation" list three sizes of unit: three, six and nine GPs. For multiples of GPs not illustrated, reference should be made to Appendix B (detail sizing calculations) and the appropriate number of consulting/examination (C/E) rooms and essential complementary accommodation added/subtracted from the nearest size of unit illustrated in the "Schedules of accommodation".

Local healthcare resource centre

Introduction

2. The core functional unit of a local healthcare resource centre is calculated on the number of combined C/E rooms required to carry out local out-patient clinics. Three sizes of unit are illustrated in the "Schedules of accommodation": three, six and nine C/E rooms.

3. The factors which need to be taken into account when assessing the needs for local out-patient clinics include:

- the district and local profile (population characteristics, morbidity, etc), from which can be derived the needs for specialties locally and for the district;
- the estimated number of new and return attendances that can be dealt with in each clinic session locally;
- the number of specialties that are required locally;
- the number of clinic staff to be accommodated (including doctors, nurses and other professional and technical staff);
- the number of rooms required for each clinic, based upon the method of working and the staff concerned;
- the timetabled use of (C/E) rooms;
- the availability of staff to conduct and support clinics.

4. Table 1 illustrates a notional average total number of attendances for the illustrated functional unit (FU) sizes. This is based on nine sessions per week per C/E room, a 48-week year and an average of 2.5 rooms required for each session. The table illustrates the notional total attendances for a variety of average numbers of patients per clinic.

Table 1

A No of C/E rooms	9	6	3	Calculation
B Room sessions/week	81	54	27	A x 9
C Clinics/week	32.4	21.6	10.8	B x 2.5
D Clinics/year (48 week year)	1552	1036	518	C x 48
E1 Attendances (15 patients/clinic)	23280	15540	7770	D x 15
E2 Attendances (20 patients/clinic)	31040	20720	10360	D x 20
E3 Attendances (25 patients/clinic)	38800	25900	12950	D x 25
E4 Attendances (30 patients/clinic)	46560	31080	15540	D x 30

However, there is no simple formula for assessing actual requirements, but a method which may be useful is set out below. The patient and staff data used are for illustrative purposes only; local figures should be substituted.

Definition of terms

5. The terms used in this Appendix and its Annexes are defined as follows:

a. **clinic session** – a notional period of a half-day (usually morning or afternoon) when a clinic is held, comprising a preparation period, consultation period and clean-up period;

b. **consultation period** – the total timetabled period that one doctor (or other professional) spends in consultation during a clinic session;

c. **room session** – the use of a C/E room by a doctor for the period of a clinic session. The total number of room sessions per week is the product of the number of rooms used and the number of clinic sessions held in each of them;

d. **clinic size** – the number of doctors (or other professionals) requiring C/E rooms for a clinic session. More than one room may be needed by each for effective use of the consultation period.

Current service profile

6. A profile of the current out-patient services should be prepared, including any existing local out-patient services. An example with two specialties only is shown in Annex 1.

Future service profile and derivation of space needs

7. A profile should be prepared of the planned local out-patient service which should consider the future of existing and other planned services and the following key factors for each speciality:

a. the projected population on which the calculations are based;

b. total planned attendances and a breakdown of new and return attendances, taking account of trends including other out-patient services;

c. average number of attendances per patient per annum, following examination of return attendance ratios and frequencies;

d. average consultation times for new and return appointments;

e. consultation period, new and return appointments;

f. clinic size.

An example for two specialties only is shown in Annex 2.

8. When preparing the planned service profile, consideration should be given to:

a. the current service profile;

b. the need to consult appropriate clinical and managerial staff in connection with the information called for in paragraphs 2 and 4 above;

c. unsatisfied demand. Levels can be assessed by comparing actual waiting times for non-urgent out-patient appointments with local, regional and national target waiting times and, as necessary, make adjustments to the service provision being planned;

d. proposals for future, new clinics at the local centre being planned;

e. proposals for other local centres being planned within the area.

9. A calculation should be made of the number of consultation periods required by each specialty to be provided for (see Annex 2 for method).

10. A calculation should be made of the number of room sessions required for each specialty. Staff who are familiar with each specialty clinic should be included in assessing the number of C/E rooms required for each clinic session, as this will be affected by:

a. the clinic size;

b. the method of working (see paragraph 3 above);

c. the time required for patients to undress/dress.

11. The overall total number of room sessions required for delivering the planned local out-patient department (OPD) service is obtained by adding together the room needs of all the clinics.

12. On the basis that a C/E room can be used for nine sessions per week, the number of C/E rooms required for a local OPD is:

Total number of room/clinic sessions per week ÷ 9

In the example in Annex 3, therefore, the number of C/E rooms is (54 ÷ 9 =) 6.

Rooms for special purposes

13. For effective use of space, standard C/E rooms should be used for as many specialties as possible. If rooms for special purposes are essential, the relevant Health Building Note should be consulted. Special purpose rooms should be used, where possible, for general clinics when not being used for their particular special purpose, and they should be brought into the calculation of overall room needs.

Layout of timetabled allocation of consulting/ examination rooms

14. Annex 4 illustrates how clinics might be accommodated in a local OPD with 6 C/E rooms. In Annex 4 it has been assumed that:

a. C/E rooms are provided adjacent to each other and used satisfactorily in conjunction with each other for the purpose of conducting a clinic;

b. staff and facilities are available to conduct and support clinics at the periods timetabled.

15. When calculating the number of C/E rooms required in a particular local OPD, it is important to recognise the issues indicated in paragraphs 10(a) and (b) above and to make adjustments to the final estimates of the size of the unit needed.

Annex 1

Current service profile

		Specialty A	Specialty B	Method of calculation
A	Population served	75,000	75,000	Local data
B	Total new attendances for OPD per annum	140	100	Local data
B1	New attendances per annum at hospital OPD	119	100	Local data
B2	New attendances per annum at existing local OPD	21	0	Local data
C	Total return attendances for OPD per annum	1560	1000	Local data
C1	Return attendances per annum at hospital OPD	1326	1000	Local data
C2	Return attendances per annum at existing local OPD	234	0	Local data
D	Total attendances per annum	1700	1100	B + C
D1	Total hospital attendances per annum	1445	1100	B1 + C1
D2	Total local attendances per annum	255	0	B2 + C2
E	Attendances per 1000 population	23	15	(D/A) x 1000
F	Average attendance per patient per annum, total attendances	12	11	D/B
F1	Average attendance per patient per annum, hospital attendances	14	11	D1/B1
F2	Average attendance per patient per annum, local attendances	12	0	D2/B2
G1	Number of hospital sessions per annum	54	48	Local data
G2	Number of local sessions per annum	11	0	Local data
H1	Average attendances per hospital clinic session per annum	31	23	D1/G1
H2	Average attendances per local clinic session per annum	1	0	D2/G2
J1	Duration of hospital consultation period (in hours)	1.5	1.5	Local agreement
J2	Duration of local consultation period (in hours)	1.5	0	Local agreement
K1	Hospital consultation rate – number of patients per hour	140	100	H1/J1
K2	Local consultation rate – number of patients per hour	18	—	H2/J2*

* Checks should be made to see if improvements can be achieved; these should include comparing values with the performance of other districts.

Annex 2

Future service profile

		Specialty A	Specialty B	Method of calculation
A	Planned population served	75000	75000	Local data
B	Planned total attendances	4500	3000	Local data from current profile, unsatisfied demand, need etc
B1	Planned hospital attendances	1350	900	Local data from current profile, unsatisfied demand, need etc
B2	Planned local attendances	3150	2100	Local data from current profile, unsatisfied demand, need etc
C	Planned total attendances per 1000 population	60	40	(B/A) x 1000
D	Planned average attendance per patient per annum, total attendances	4.50	4.00	Local data – may differ from current figures
E1	Calculated new hospital attendances per annum	300	225	B1/D
E2	Calculated new local attendances per annum	700	525	B2/D
F1	Calculated return hospital attendances per annum	1050	675	B1-E1
F2	Calculated return local attendances per annum	2450	1575	B2-E2
G1	Average duration of new hospital consultation (in minutes)	9	15	Local agreement
G2	Average duration of new local consultation (in minutes)	6	7	Local agreement
H1	Average duration of return hospital consultation (in minutes)	6	12	Local agreement
H2	Average duration of return local consultation (in minutes)	5	5	Local agreement
J1	Annual hospital consultation time required (in hours)	150	191	((E1xG1)+(F1xH1))/60
J2	Annual local consultation time required (in hours)	249	188	((E2xG2)+(F2xH2))/60
K1	Average duration of hospital consultation period	2.5	2.5	Local agreement
K2	Average duration of local consultation period	2	2	Local agreement
L1	Number of hospital consultation periods per week	1.25	1.59	(J1/K1)/48, assumes a 48-working-week year
L2	Number of local consultation periods per week	2.60	1.95	(J2/K2)/48, assumes a 48-working-week year
M1	Average attendances per hospital clinic session	23	12	B1/(L1x48)
M2	Average attendances per local clinic session	25	22	B2/(L2x48)
N1	Hospital consultation rate – number of patients per hour	9	5	M1/K1
N2	Local consultation rate – number of patients per hour	13	11	M2/K2

Annex 3

Number of room sessions per week

Type of session	Number of consultation periods per week	Number of consultation periods per clinic session	Number of rooms used per consultation period	Number of rooms used per clinic session
Specialty A	2.60	1	2	2
		1	2	2
		0.6	2	1
Specialty B	1.95	1	3	3
		1	2	2
		0.77	1	1
Specialty C	2	2	2	4
Specialty D	2.3	1	3	3
		1	2	2
		0.3	2	1
Specialty E	3	1	3	3
		2	2	4
Specialty F	1.5	1	2	2
		0.5	2	1
Specialty G	2.5	1	3	3
		1	2	2
		0.5	2	1
Specialty H	1.3	1	2	2
		0.3	2	1
Specialty I	1.75	1	3	3
		0.75	2	2
Specialty J	3.5	1	3	3
		2	2	4
		0.5	3	2
Total number of room/clinic sessions per week =				54

Annex 4

Allocation of clinic sessions

	Day/period	Number of consult examination rooms in each string 4	2
		Utilisation of C/E rooms	
Monday	am	Specialty B (3)	Specialty A (2)
	pm	Specialty C (4)	Specialty F (2)
Tuesday	am	Specialty E (4)	Specialty H (2)
	pm	Specialty J (4)	Specialty F (1) Specialty B (1)
Wednesday	am	Specialty D (3)	Specialty G (2)
	pm	Specialty J (3)	
Thursday	am	Specialty A (2)	[Specialty I (2)]
	pm	Specialty I (3)	Specialty G (1) [Specialty D (1)]
Friday	am	Specialty D (3)	Specialty B (2)
	pm	Specialty E (3) [Specialty A(1)]	[Specialty J (2)]

Note: [ ] = does not occur every week
(Y) = Y is the number of C/E rooms used

Appendix B – Sizing guides

Primary healthcare centres

Introduction

1. The detail elements within the primary healthcare centre have been sized on the number of C/E and treatment rooms provided, the number of GPs and the average list size for a GP. The current national average is 1990 patients per GP; however, this figure is likely to vary locally. The actual/projected figures for the unit list size and number of rooms provided should be substituted into the following calculations, and consideration given to the factors listed under each section.

Waiting, general

2. The waiting allowance is based upon a full appointment system with an allowance of 1.3 sq m per seat. The numbers of seats provide a nominal allowance for attendants, and are related to the number of C/E rooms. Consideration should be given locally to the following, and the allowance revised accordingly:

a. any service to be provided which will not operate an appointment system;

b. the proportion of services which will attract a higher than normal percentage of people with mobility impairment. If a significant proportion is expected, the seating allowance may be increased to 1.7 sq m/seat for a corresponding proportion to be allocated accordingly;

c. the proportion of the local population that belongs to population groups which have comparatively extended families, or if any other factor is likely to affect the number of attendants.

Main waiting

3. The allowance for waiting is calculated on the number of C/E rooms, as follows:

1 C/E room only	7 seats;
2 C/E rooms only	12 seats in total;
3 C/E rooms or over	5 seats per C/E room.

Consequently, for every additional C/E room over three that is added to the units illustrated, five additional seats should be provided. For fewer than three C/E rooms, the above figures should be used.

Sub-waiting, treatment

4. The allowance for sub-waiting is four seats per treatment space. If any additional space or nurse C/E room is provided, consideration should be given to adding an extra four seats.

Office accommodation

5. General office accommodation is allocated on the basis of two factors: the number of workstations, and a general allowance related to the unit list size. Two, three and four workstations (at 6 sq m per workstation) are provided for three, six and nine C/E unit sizes, and 1 sq m per 1000 patients on the unit list has been added. This total allowance is to provide for general administrative support (secretarial services, computer operator, telephonist, etc), and has been grouped together to allow distribution in accordance with local administrative operational policy.

6. The OAS allow for the provision of additional workstations to assist with the development of unit sizes not illustrated and to allow for specific local proposals which require additional administrative support.

Records storage

7. Records storage is provided at 2 sq m per 1000 records on the average list size per GP. Consideration should be given to the following:

a. the actual list size of the practice unit. The required area = 2 × (list size/1000);

b. the current provision, policies and systems;

c. the proposed records size, storage policy and storage system. Electronic archiving and mechanical storage systems can significantly affect the area required.

OAS accommodation – consulting/examination rooms

8. If one or more additional C/E rooms is required to provide the appropriate unit size, consideration should be given to the factors listed in paragraphs 2 – 4 above regarding waiting areas.

9. If one or more additional C/E rooms is considered to be required for other/additional services, consideration should be given to the following:

a. the timetabling use of standard facilities;

b. the factors listed in paragraphs 2 – 4 above regarding waiting areas.

10. If one or more additional C/E rooms is considered to be required for local OPD services, consideration should be given to the factors listed in paragraphs 9a and 9b above and to the factors and calculations given in Appendix A for local healthcare resource centres.

OAS – major treatment

11. Sizing is based on the ergonomic data sheets supplied in Appendix D below.

Local healthcare resource centres

Introduction

12. The detail elements within the main DCAG for the local healthcare resource centre have been calculated on the number of C/E and treatment rooms included. The minor DCAGs are sized on their functional unit, which is defined in paragraph 2.52 of this Note.

Waiting, general

13. Refer to paragraph 2 above, as for primary healthcare centres.

Main waiting

14. The waiting allowance includes for an average number of companions/attendants of one to two (an above average proportion can be expected for paediatrics, eye clinics and ENT clinics), and has been calculated as follows:

six seats per C/E for up to three C/E rooms;
five seats per C/E for over three C/E rooms.

This is based on a doctor's session of 25 to 30 patients, and should be adequate for 90 percent of the time. The reduction for over three C/E rooms allows for two concurrent sessions when it is not anticipated that the peak requirements will all occur at the same time.

Sub-waiting

15. An allowance of five seats per treatment room is provided. Provison for major treatment waiting is as per paragraph 13 above.

General office workstations

16. See paragraph 5 above, as for primary healthcare centres.

General OAS – consulting/examination rooms

17. See paragraphs 8 to 10 above, as for primary healthcare centres.

18. Two sizes of C/E are provided as OAS for the local healthcare resource centre: 12.5 sq m and 16 sq m – the larger allows for an island couch (see ergonomic data sheets in Appendix D). The general allowance is 12.5 sq m; however, in considering local requirements, consideration should be given to the following:

a. number of rooms:
   (i) the factors listed in Appendix A for local healthcare resource centres;
b. size of rooms:
   (i) the timetabling and use of rooms (for example, treatment rooms which include an island couch);
   (ii) the need to consult appropriate clinical and managerial staff.

Group room

19. The allowance for seated activities is 2 sq m per person, and for exercising/other activities it is 4 sq m per person. Local considerations should also be given in the light of any specific activities which may need to be undertaken in this room.

Radiology, occupational therapy, physiotherapy

20. To evaluate the need for these and other specialist facilities, in order to arrive at a sizing, account should be taken of the nature of the service to be provided, with regard to the following:

a. any existing hospital workload likely to transfer to the local healthcare resource centre, and identifying the potential workload referred from the planned catchment area;
b. any known changes to the pattern of contracts with purchasing authorities;
c. the likely/possible increased usage of the local facility by GPs, for which due allowance should be made;
d. the staffing and reporting arrangements.

Reference should be made to the 'Community hospitals design guide' for further guidance.

Appendix C – Case studies

This appendix includes case studies of two buildings from different parts of the country. They are not intended to be typical or exemplar solutions, since neither building completely corresponds to this Health Building Note's definition of a local healthcare resource centre. The studies are included to illustrate key, specific issues, and to provide an illustrative/comparative brief, design and development story.

Case study 1: Callowland Surgery, Watford

This surgery is an example of a general medical practice premises which was designed in accordance with HBN 46. It is included to illustrate the basic organisational design principles and an approach to maximising the effective use of space.

Case study 2: Small Heath Health Centre, Birmingham

Small Heath Health Centre is an innovative project which is an example of multi-party cooperation, both in terms of use and funding. The study illustrates the potential advantages to each user of the sharing of resources, and the programme of the development highlights the possible time penalty that is likely to result from the extended consultation/negotiation which is required for a successful multi-party development.

Case study 1: The Callowland Surgery

Background

The surgery was built to relocate a five-GP-plus-trainee practice, and was originally intended as a case study for HBN 46, being one of a number of buildings designed as part of its production and evaluation process. The building predates most of the recent changes in the primary care sector; the main organisational principles remain valid, however.

The brief

Accommodation was required for five GPs and a trainee – including treatment areas, staff facilities and a base for district nurses – and was to be provided under the Cost Rent Scheme. Confidentiality/privacy was a priority in all areas of the building, and the GPs wished to be able to access the administration areas, and enter or leave the building, without being observed by the patients, if and when required. Additionally, it was practice policy for each GP to leave his room and collect his patients from the waiting room. In order to maintain the viability of this personal approach, travel distances were kept to a minimum.

Description

The site previously contained a Victorian school which was demolished outside of the building contract. The foundations of the school were not removed at the time of demolition, and the foundations of the new building were cut through the existing ones where necessary. The existing trees on the site, together with the building line and car parking requirements, placed a significant restriction on the location and footprint of the new building. Additionally, the predominantly clay soil conditions, and the proximity and size of the existing trees, resulted in an exceptional increase in the depth, and therefore specification and resultant cost, of the new foundations.

The building plan is in the form of a simple single-storey square, which is raised out of the ground to provide privacy from outside views The internal areas are clearly organised into three zones (see Figure C1), and the intra-zonal relationships are the key to the functioning of the building. The central area is the public, noisy area, and the private rooms are arranged around the outside, protected from the noise by a zone of circulation and service areas.

The public zone contains the entrance area, reception desk, waiting and toilets. This area has a raised roof with clerestory windows and two large glazed screens to the front of the building, allowing light into the centre of the building and views out. The entrance area contains an additional waiting area which can be used when the main waiting space is closed off for classes or group sessions. This central zone can also be isolated from the rest of the building, allowing out-of-hours access for special events (see Figure C2).

The clinical zone occupies two sides of the plan, with two banks of consultation/examination rooms arranged adjacent to an entrance to the waiting room for easy access. The corner contains the treatment/minor surgery suite, which has its own forward waiting area. There is also a rear exit/entrance for the discrete use of staff or distressed patients. Located at the front of the building, this zone contains two interview /multi-purpose rooms: the larger of these is used for baby clinics and small group sessions, and the smaller provides a resource for private discussions at the entrance to the building.

The staff/administration zone occupies the last side of the building, and can be accessed from behind the reception desk or from the circulation route at the back of the building. The kitchen area is adjacent to the main waiting area, and has a connecting hatch to facilitate the provision of light refreshments for group meetings or events. Immediately behind the reception desk is the records area and a small area for doctors' messages.

Disadvantages

There are two main disadvantages with this solution. The treatment forward-waiting space cannot be supervised by the reception desk, and the enclosed-plan form is not readily extendable, except onto a first floor. However, while the plan is not extendable, the modular solution allows for a change in the use of rooms – that is, from an office to a consulting/examination room, etc – and thus there is some allowance for future adaptation.

Table C1. Building statistics

Summary of areas	M2
Cost rent allowance	441
Building (total ground)	462
Site	1992

Contract programme

Site start	Mar 90
Contract period	32 weeks
Contract handover	Dec 90

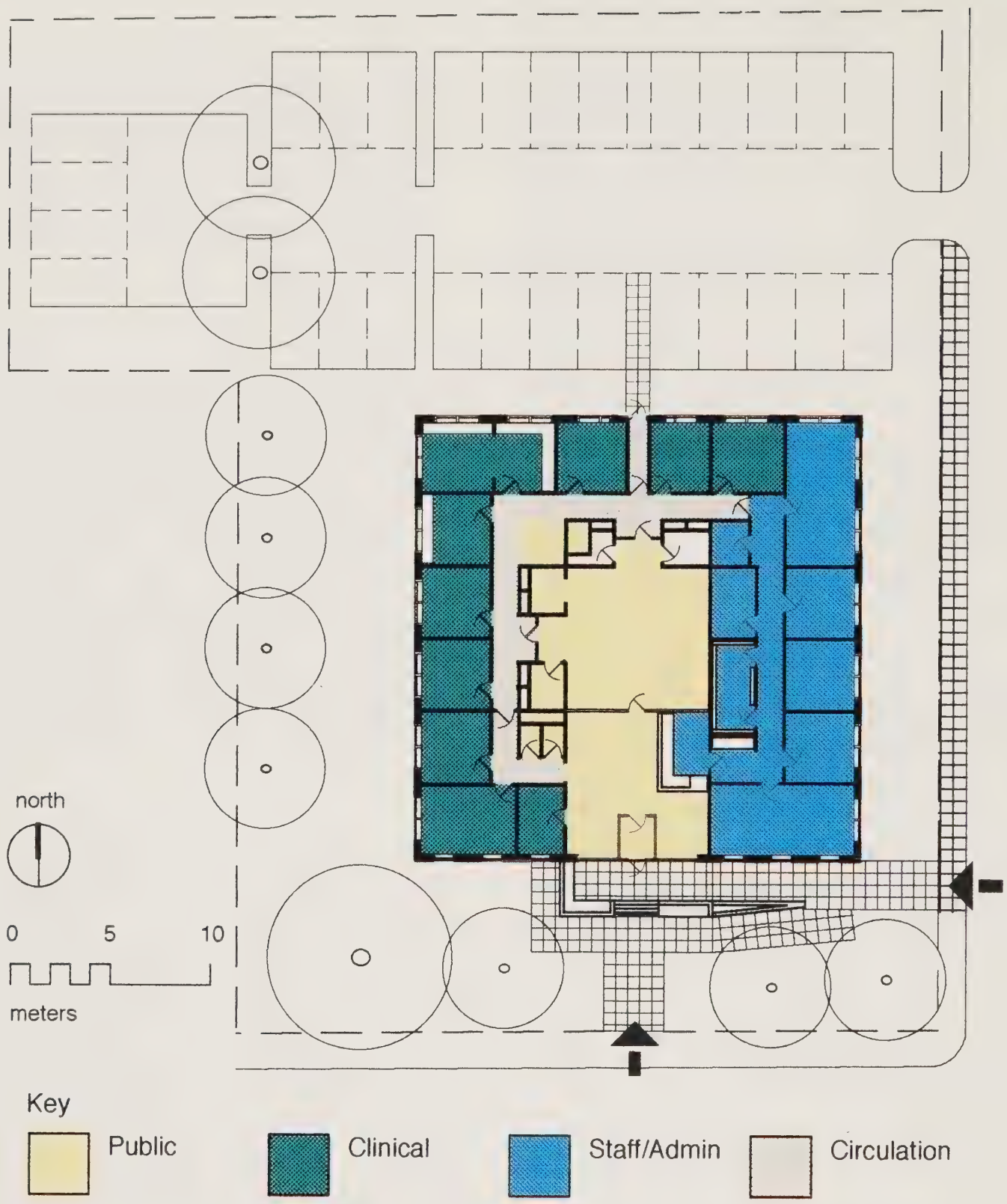
Contract

JCT 63, with specification and drawings.

Table C2. Schedule

Schedule of areas (Callowland)		m²
Space	No	Area (m²)
Entrance	1	24.50
Prams	1	4.50
Waiting	3	70.30
Children's play	1	4.20
Patient WC + spec	4	10.82
Consult/exam	5	61.25
Trainee C/E	1	10.20
Treatment	1	12.25
Treatment/utility	1	22.40
Interview/multi-purpose	2	24.50
Reception	1	11.00
Records	1	11.50
Practice manager	1	12.25
Sec/clerical	2	24.50
Common room	1	24.50
Kitchen	1	8.64
Staff WC/shower	2	4.32
District/community nurses	1	24.50
Plant/storage	7	18.00
Subtotal		384.13
Circulation		22%
Total		462.00

Figure C1: The Callowland Surgery Building plan



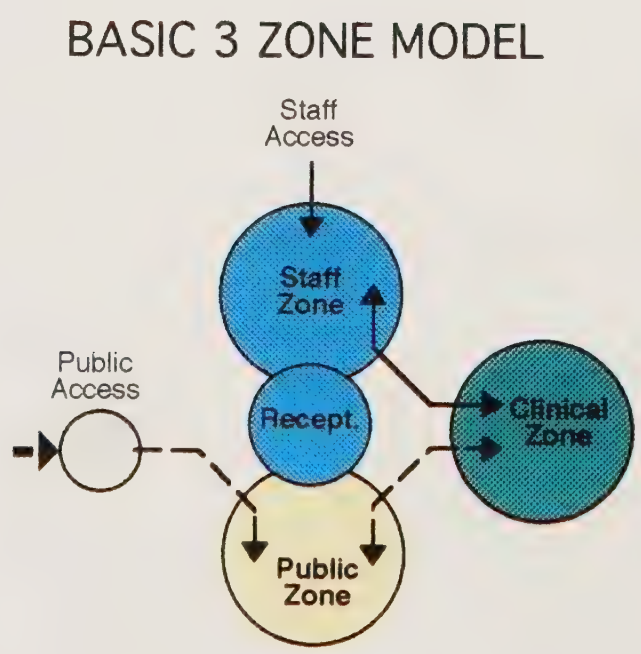
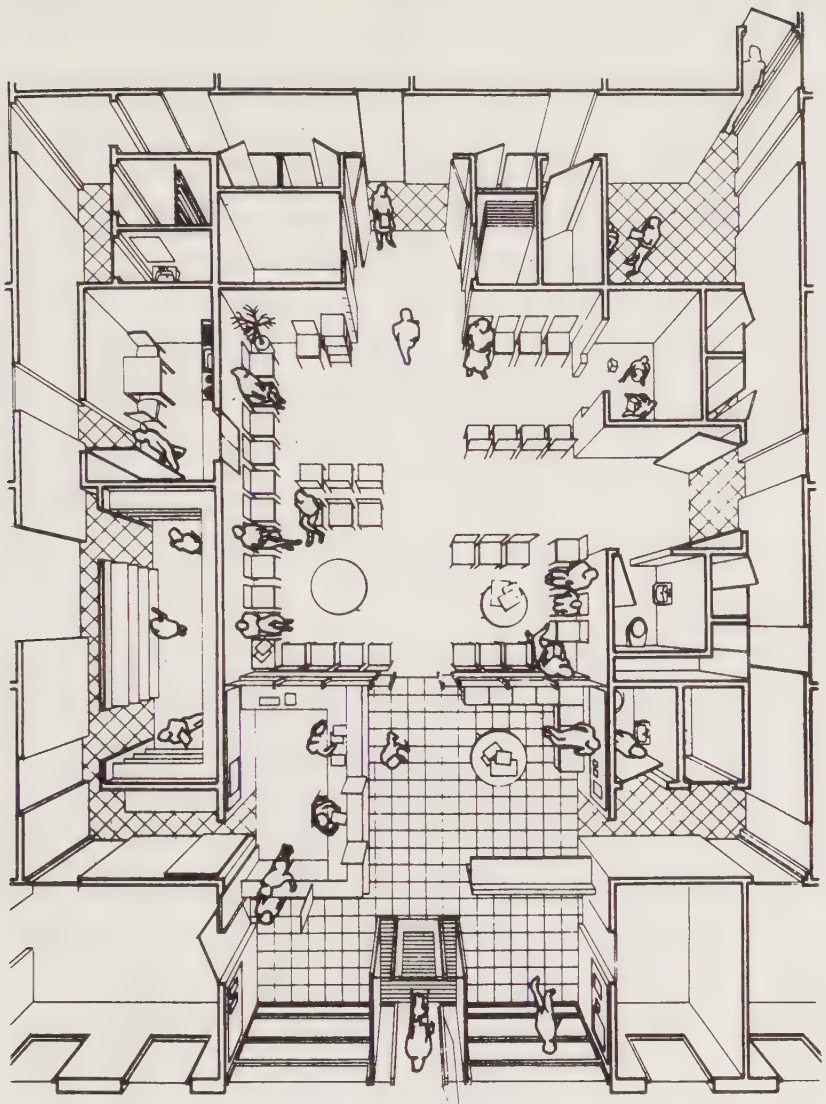
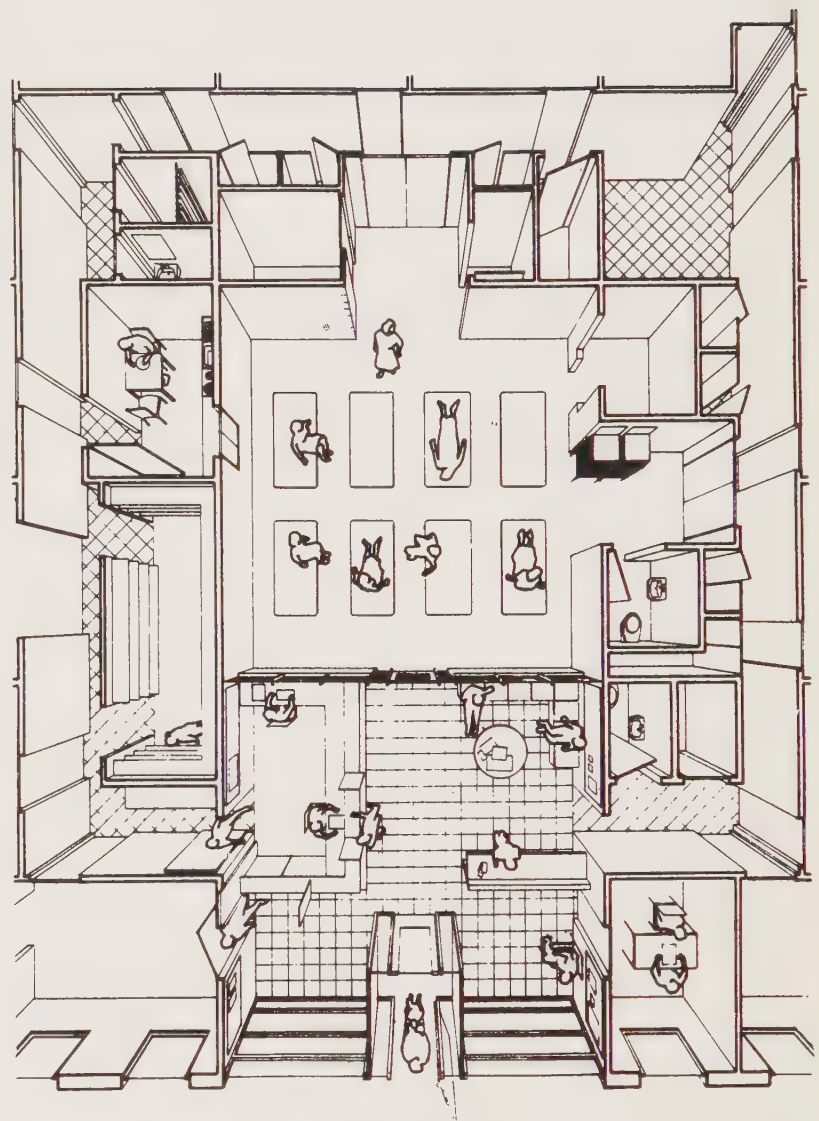


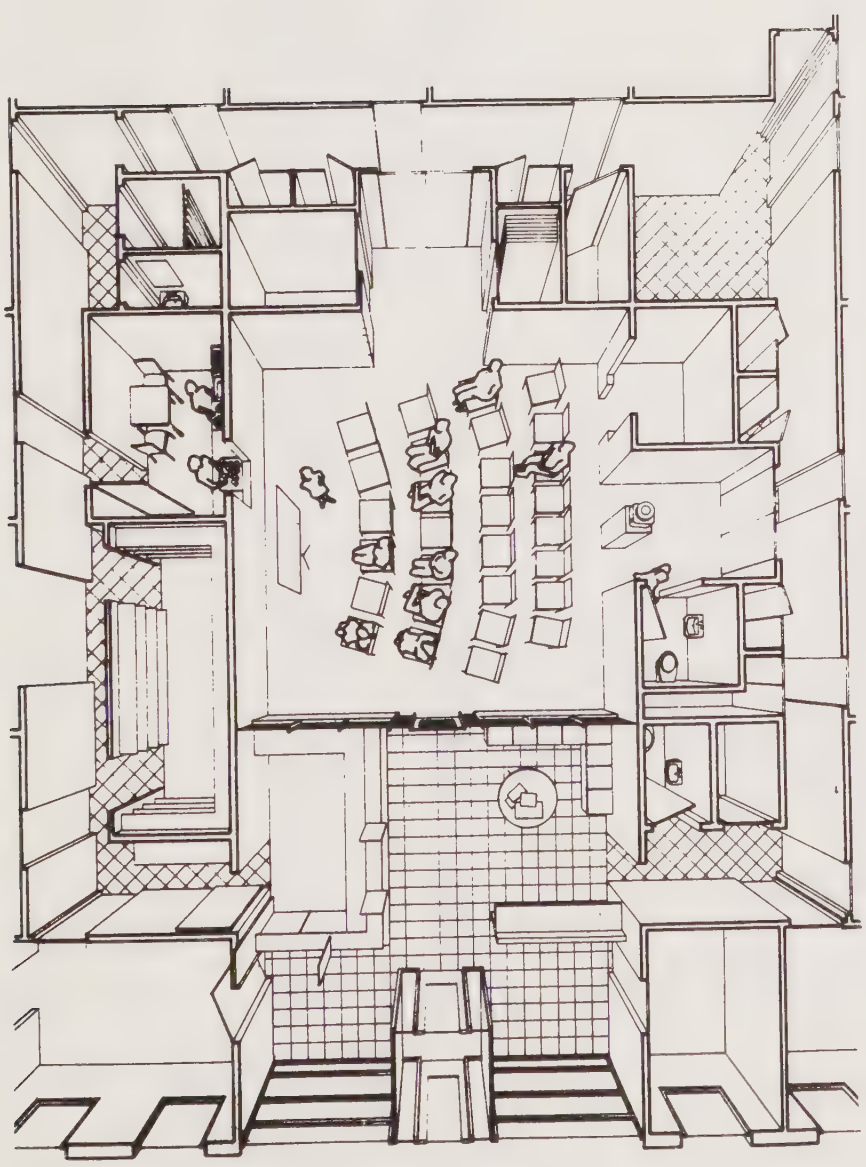
Figure C2: Callowland Surgery shared spaces



Waiting



Group Activity/Health Education



Seminar/Teaching

Case study 2: Small Heath Health Centre

Background

The scheme originates from a decision taken by the East Birmingham planning team in late 1985 to provide mental health facilities within the communities they serve, rather than in the existing, remote, Victorian institutions or a new, central, acute general hospital development. With a joint East Birmingham/NHSE R&D commission in 1988, work began to translate this idea into a brief and designs. This resulted in the publication of 'Building for Mental Health' (MARU, 1991).

Through the planned relocation of an existing cramped family health centre (FHC) and GP surgery, and the proposal for the new community mental health centre (CMHC), Small Heath provided the opportunity for an innovative project which caters for diverse care groups in an inner city location.

The brief

From a starting point of two separate briefs, for a health centre and a community mental health centre respectively, areas were identified which the different service providers could use as a shared resource. It was considered important by the team that, from the patient's point of view, no distinction was highlighted between the care offered for mental and physical health. This was achieved by having one main entrance for patients, one reception desk, and a series of waiting areas differing in scale.

Arriving at a shared solution, both in terms of integrating the different users and design for multi-use of space, took some time and involved a number of scheme/design variations and consultation meetings. Figure C3 provides a graphical illustration of the total resource area that is available to each user, and Table C3 provides a more detailed breakdown of the spaces within the building used by each group. Comparing the area and facilities available to each user with their individual allowance, the advantage of sharing the facility is clear.

Description

The scheme responds to the site constraints, following the urban street pattern, with the linear design flanking two edges of the site, enclosing and protecting a private garden. Areas in the centre of the ground-floor plan are allocated to busier and noisier activities, whilst those at the extremes are more private and quiet. The centrally-located communal waiting spaces form a focal point for the building, and serve as a meeting-place for both public and staff (see Figure C4). The first floor contains the main staff and in-patient accommodation, removing this from the more public spaces below for increased privacy (see Figure C5).

Figure C3: Small Heath Health Centre Total resource area available to each user

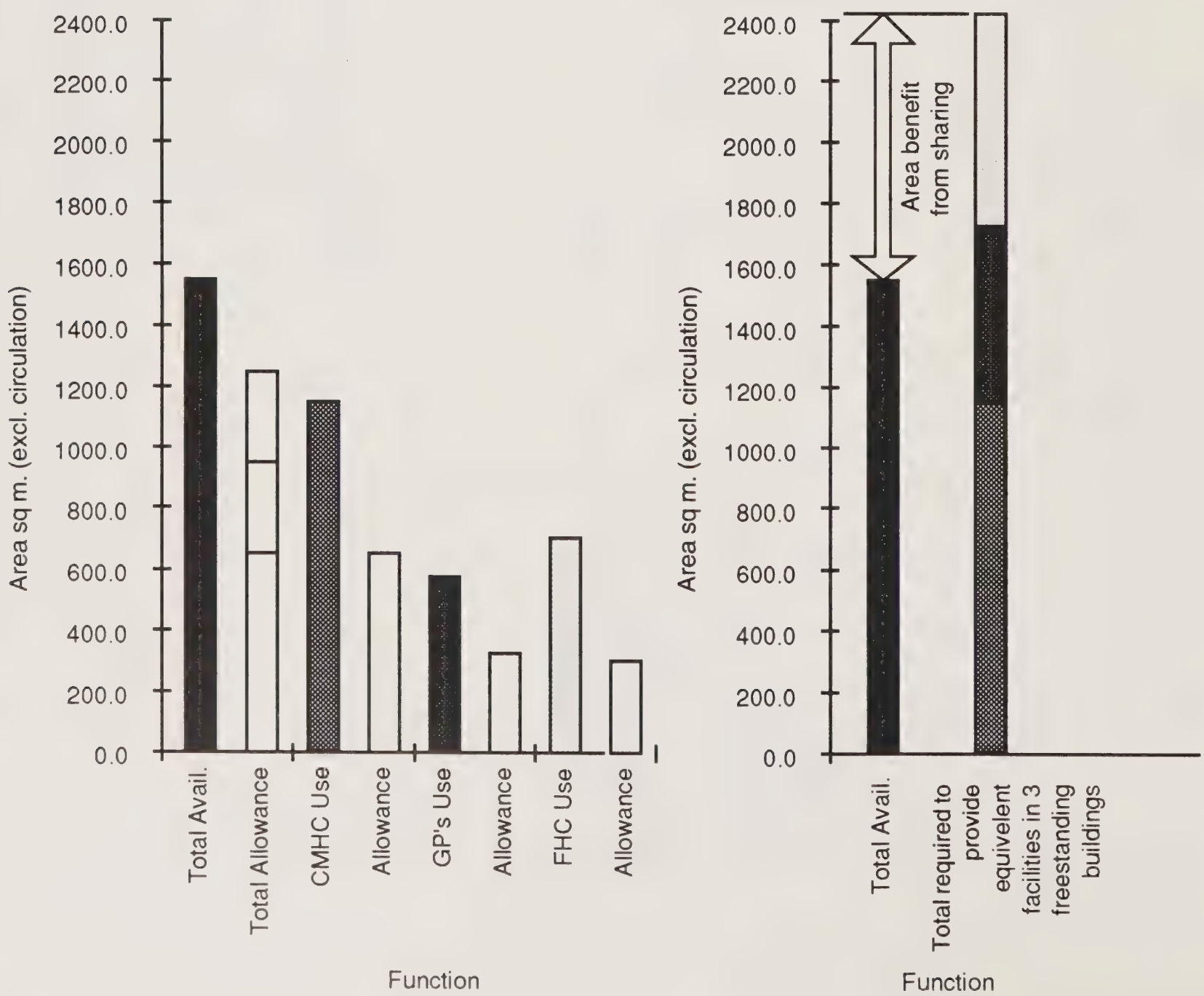


Figure C4: Small Heath Health Centre, Ground floor

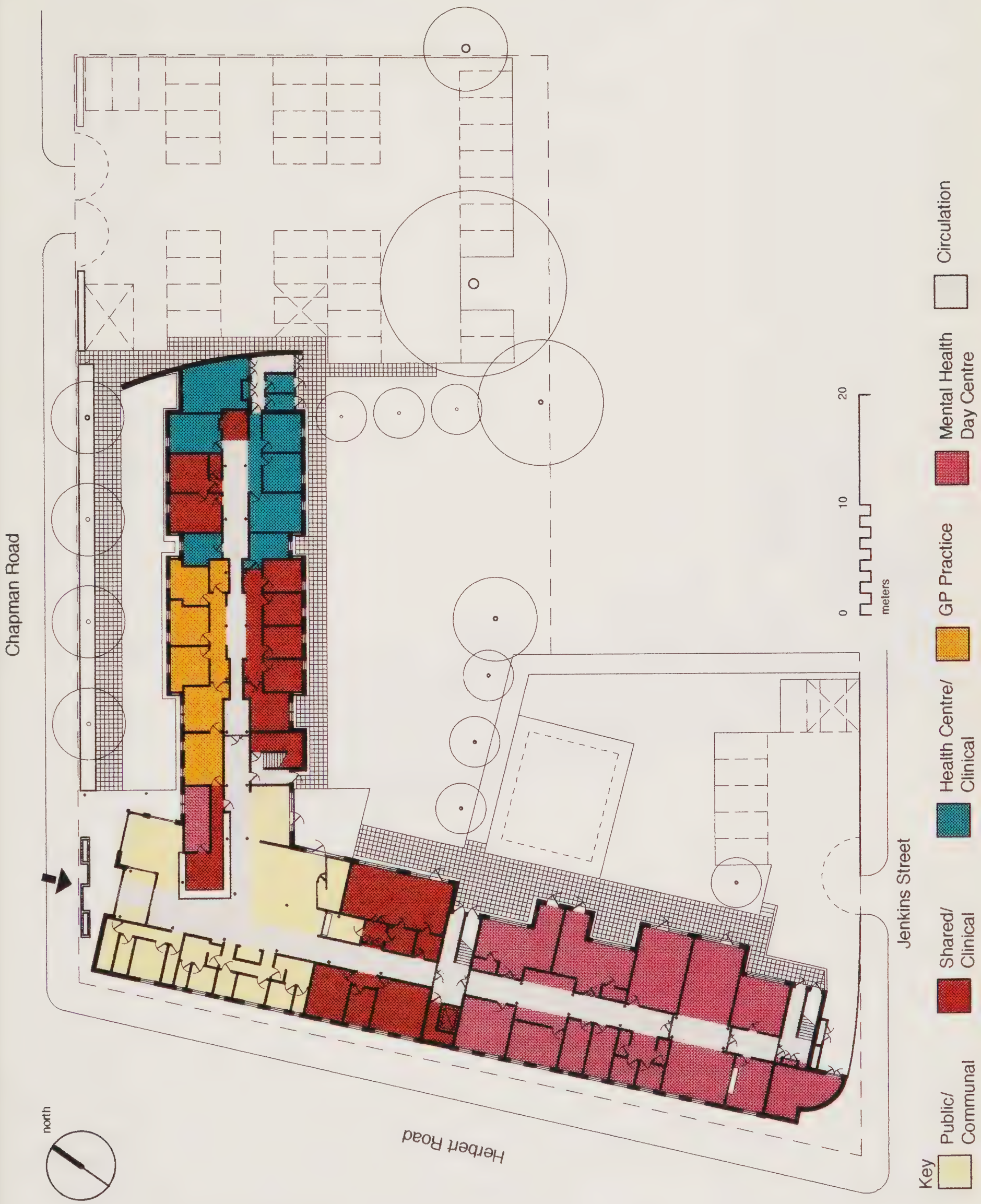


Figure C5: Small Heath Health Centre, First floor

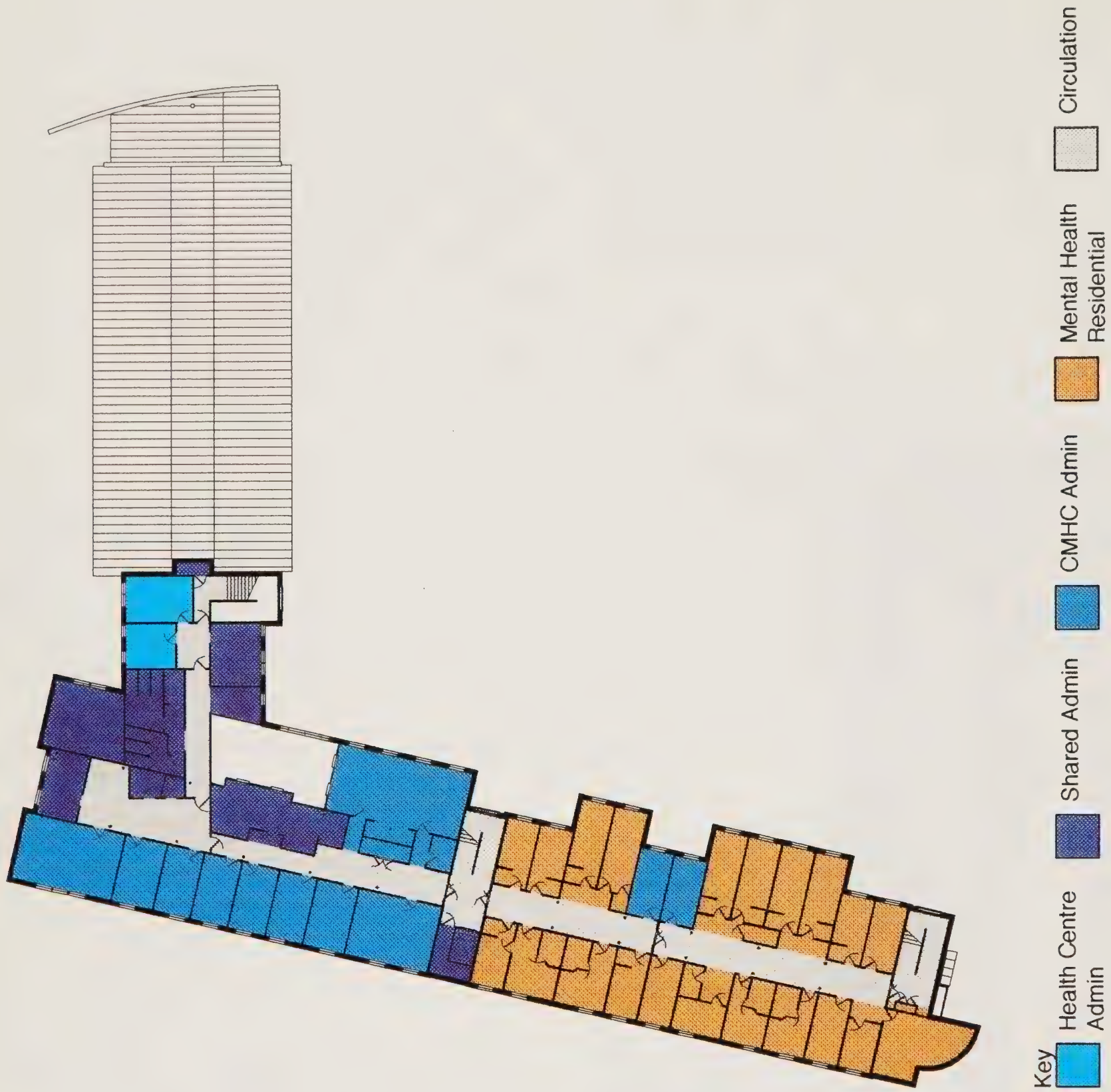


Table C3. Shared room use (excl. circulation)

Space	No	Area	CMHC	GP	FHC
Ent./Reception	2	63.6	●	●	●
Records (CMHC)	1	13.6	●		
Records (GPs)/Admin	1	16.5		●	
Main waiting	1	63.2	●	●	●
Child play	1	10.8	●	●	●
Tea bar	1	5.3	●	●	●
Patient WCs	4	43.6	●	●	●
Activity/group room	2	70.0	●	●	●
Interview rooms	5	60.0	●	●	●
Staff rest/kit./library	2	35.8	●	●	●
Staff W/change	3	25.6	●	●	●
Office + photocopy	2	27.2	●		●
Stores + bins	3	16.5	●	●	●
Stores	2	10.3	●	●	
Switchroom	1	4.9	●	●	●
Forward waiting	1	6.4			●
Quiet waiting	1	17.9		●	●
GP consult/exam	3	35.1		●	
Interview/exam	3	37.0		●	●
Treatment/P nurse	1	16.5		●	
Treatment – DN/MH	1	16.5			●
Dirty utility + staff WC	2	14.7		●	●
Chiropody treatment	2	12.3			●
Child health	1	10.2		●	
Speech therapy	1	16.5			●
Clinical waste	1	2.8		●	●
P Man + Sec office	1	15.3		●	
FHC offices	5	109.0			●
Stores	2	12.8			●
12 hr plant + switch	2	25.3		●	●
Waiting	1	5.6	●		
Quiet room	1	22.1	●		
Sitting	2	50.4	●		
Day patient W	4	5.5	●		
Patient utility	1	10.8	●		
Pantry	1	10.8	●		
Day/dining + kitchens	3	106.1	●		
Dirty + clean activity	2	59.4	●		
Therapy/multi-purpose	2	21.6	●		
Multi-purpose room	1	10.8	●		
Single bed (4 en-suite)	14	168.2	●		
Bathroom/shower	1	12.0	●		
Treatment area	1	10.8	●		
Dirty utility	1	8.1	●		
CMHC office + staff work	9	170.8	●		
Stores	11	43.5	●		
Switchroom	1	2.0	●		
24 hr plant + switch	2	23.1	●		
Total area		1557	1192	614	685
Total rooms	116		88	45	46

CMHC – community mental health centre
GP – GP surgery
FHC – family health centre
● – space used by group

Table C4. Building statistics

Summary of areas	m² (incl. circulation)
Building ground	1322
Building first	912
Total	2234
Contract programme	
Site start	Dec 92
Contract period	64 weeks
Contract handover	Feb 94 commissioning 6 weeks
First admissions	April 94

Contract

JCT 80, with Design Build Supplement. With novation of the design team.

Appendix D – Ergonomic diagrams

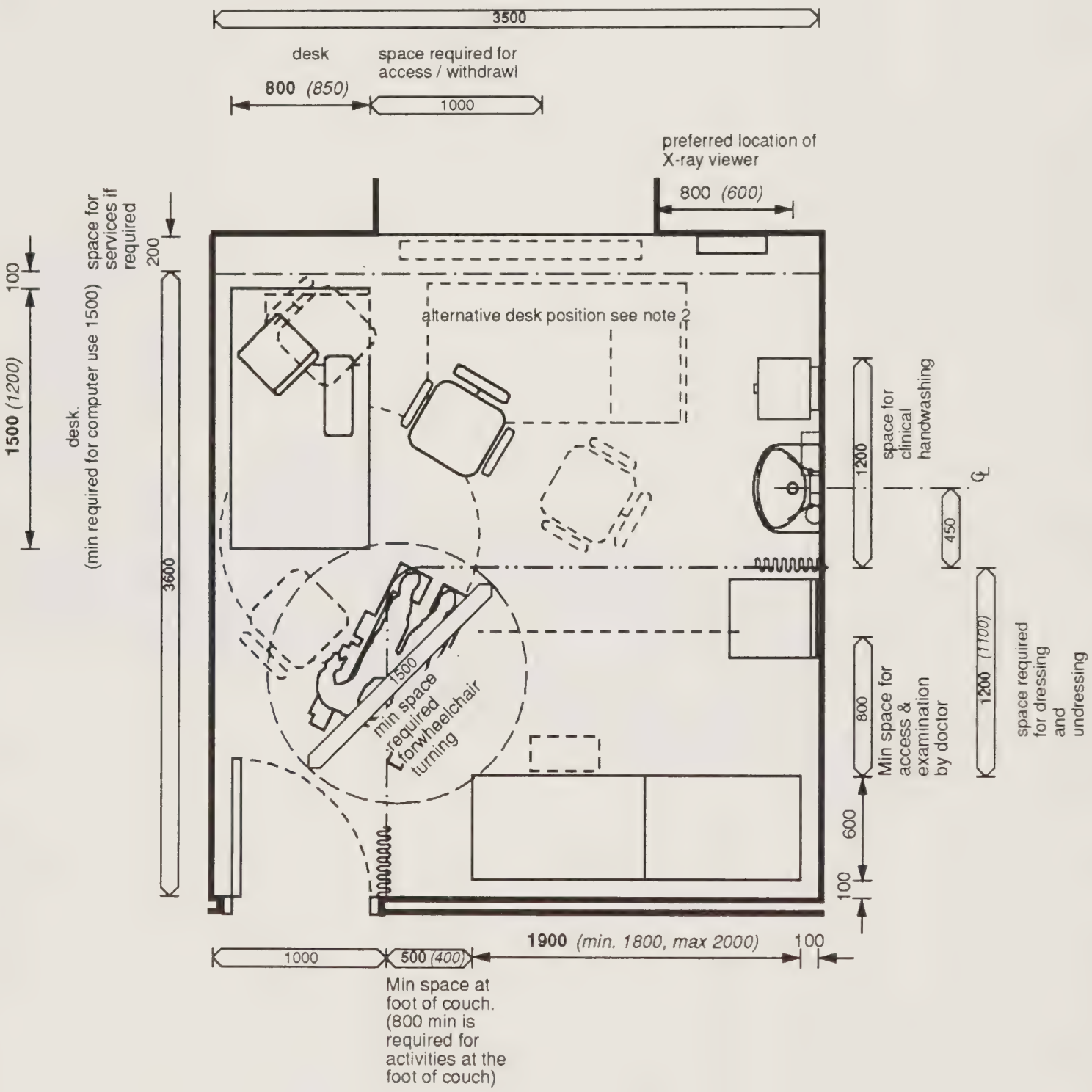
Activities:
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out.

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Consult/ Examination

Type 1, layout a

Users:
Up to 2 staff, patient and escort



Notes:

1350 *(1300)*

Preferred minimum: *(Restricted minimum, not recommended for general use, see explanatory notes)*

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1. The doctor when seated at the desk should not have his back to the door, but positioned so as to comfortably acknowledge the visitor on entry.

2. The desk is not ideally located in this layout, it should not be placed so that the doctor has his back to a window, this can cause his face to be in silhouette thus making it difficult for a visually impaired person to see the doctor's face clearly and a hearing impaired person to lip read. The alternative position provides better light on both patient and doctor but consideration should be given to note 1.

3. The couch should be located so that the doctor can work on the patient's right.

4. The overall width of the room should be increased by 100 - 300 mm if access is regularly required at the end of the couch.

5. An emergency call system for the staff

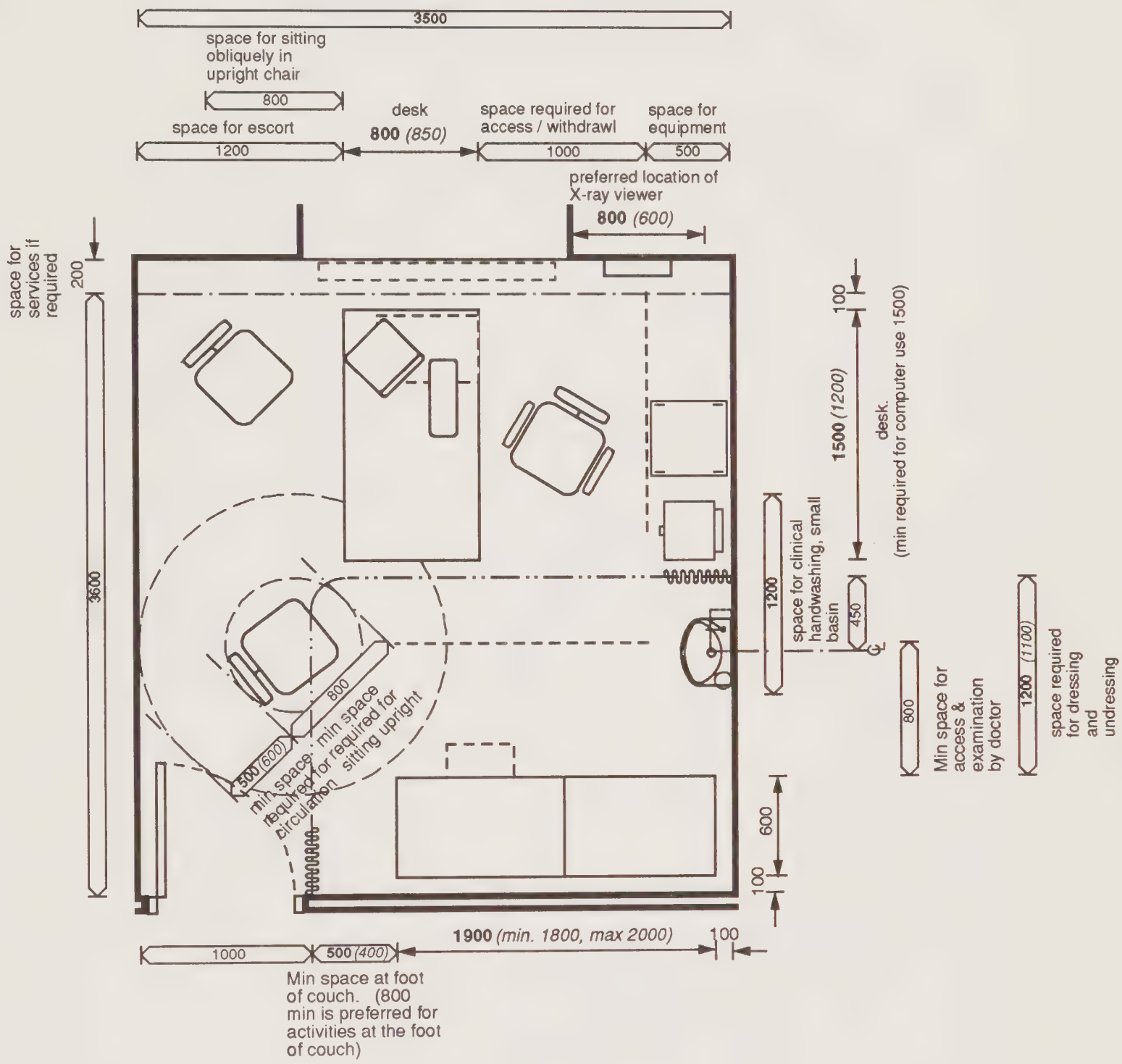
Activities:
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out.

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Consult/ Examination

Type 1, layout b

Users:
Up to 2 staff, patient and escort



Notes:

1350 *(1300)*
Preferred minimum: *(Restricted minimum, not recommended for general use, see explanatory notes)*

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1. The doctor when seated at the desk must not have his back to the door, but positioned so as to comfortably acknowledge the visitor on entry.

2. The desk must not be placed so that the doctor has his back to a window, this can cause his face to be in silhouette thus making it difficult for a visually impaired person to see the doctor's face clearly and a hearing impaired person to lip read.

3. The hand wash basin and dressings trolley should be sited in the working area of the doctor so that they can be used without disturbing the patient or escort. A small basin is shown, if a larger basin is included it should be moved from within the curtained cubicle so as not to restrict access to the head of the couch.

4. The couch should be located so that the doctor can work on the patient's right.

5. The overall width of the room should be increased by 100 - 300 mm if access is regularly required at the end of the couch.

6. An emergency call system for the staff should be provided.

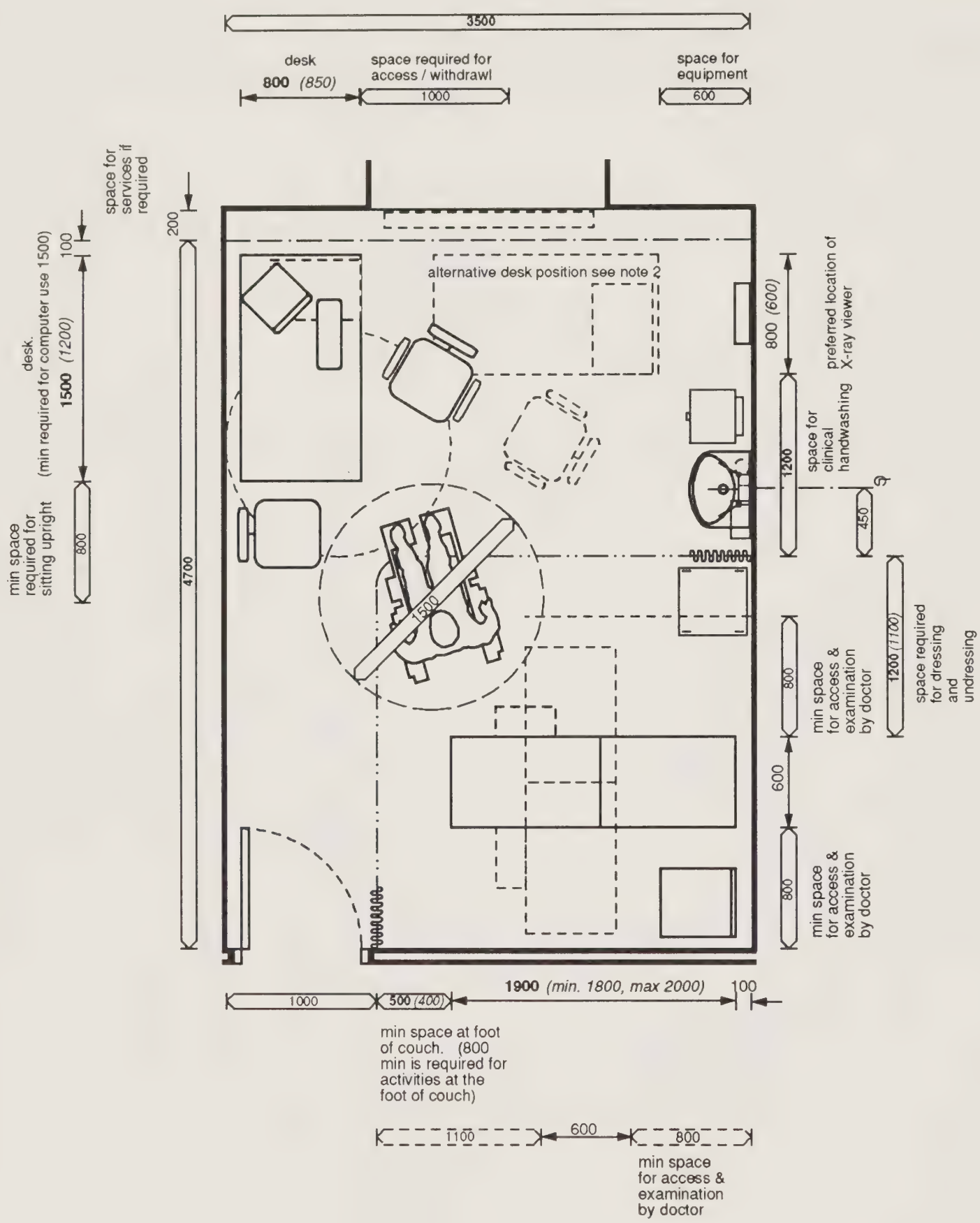
Activities:
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out.

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Consult/ Examination

Type 2, layout a

Users:
Doctor, patient (who may be ambulant, semi-ambulant or use a wheelchair) and escort.



Notes:

1350 *(1300)*
Preferred minimum: *(Restricted minimum, not recommended for general use, see explanatory notes)*

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1. The doctor when seated at the desk should not have his back to the door, but positioned so as to comfortably acknowledge the visitor on entry.

2. The desk is not ideally located in this layout, it should not be placed so that the doctor has his back to a window, this can cause his face to be in silhouette thus making it difficult for a visually impaired person to see the doctor's face clearly and a hearing impaired person to lip read. The alternative position provides better light on both patient and doctor but consideration should be given to note 1.

3. The couch should be located so that the doctor can work on the patient's right, or from all sides.

4. The overall width of the room should be increased by 100 - 300 mm if access is regularly required at the end of the couch.

5. An emergency call system for the staff should be provided.

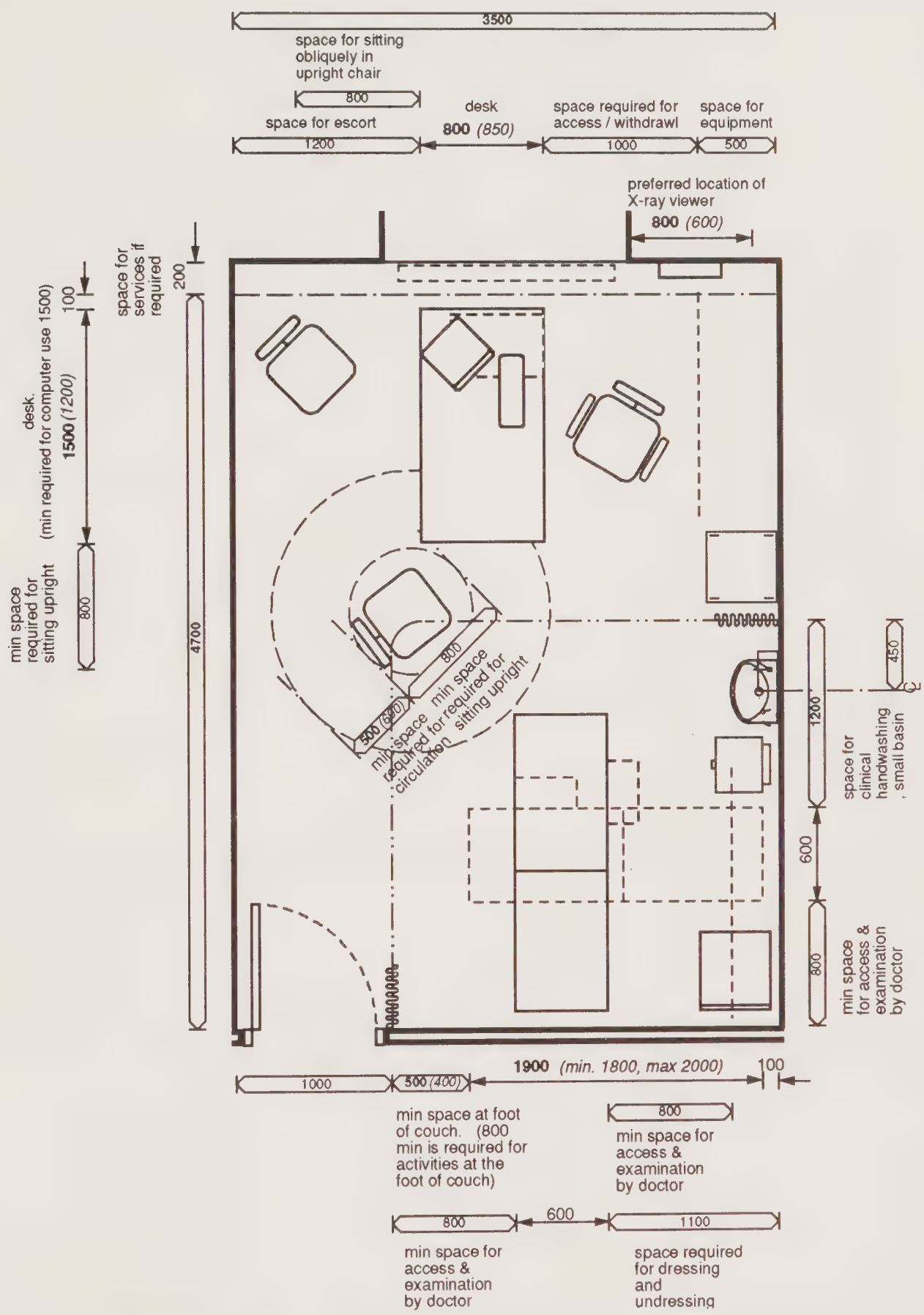
Activities:
An activity space where a patient may be interviewed in confidence and examined by a doctor assisted by a nurse or patient's escort, and where certain diagnostic and therapeutic procedures may be carried out.

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Consult/ Examination

Type 2, layout b

Users:
Doctor, patient (who may be ambulant, semi-ambulant or use a wheelchair) and escort.



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1. The doctor when seated at the desk must not have his back to the door, but positioned so as to comfortably acknowledge the visitor on entry.

2. The desk must not be placed so that the doctor has his back to a window, this can cause his face to be in silhouette thus making it difficult for a visually impaired person to see the doctor's face clearly and a hearing impaired person to lip read.

3. The hand wash basin and dressings trolley should be sited in the working area of the doctor so that they can be used without disturbing the patient or escort. A small basin is shown, if a larger basin is included it should be moved from within the curtained cubicle so as not to restrict access to the head of the couch.

4. The couch should be located so that the doctor can work on the patient's right, or from all sides.

5. The overall width of the room should be increased by 100 - 300 mm if access is regularly required at the end of the couch.

6. An emergency call system for the staff should be provided.

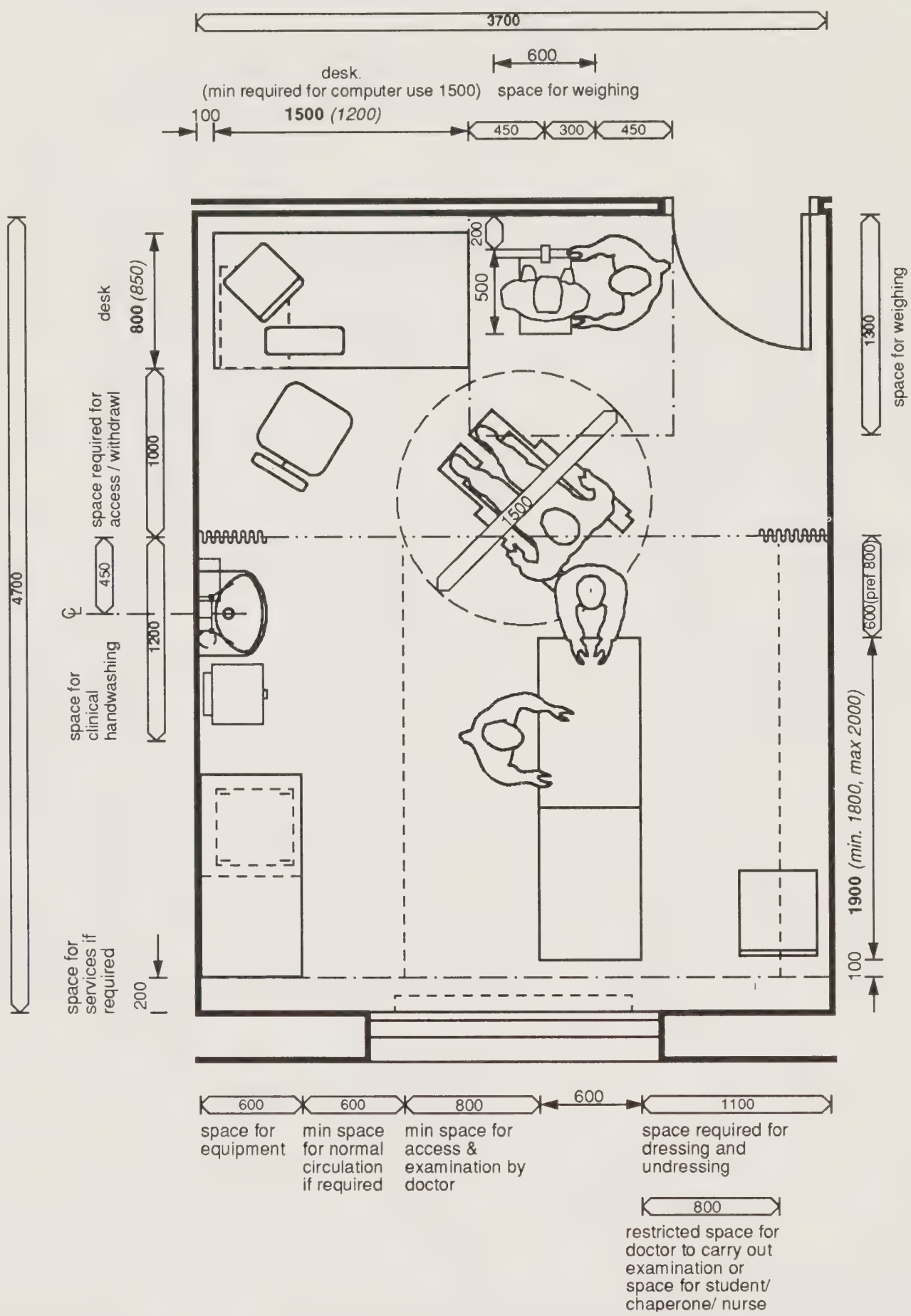
Activities:
Facilities for medical and nursing staff to consult / interview / weigh patients and to carry out clinical procedures requiring an island couch. Procedures will be performed by 1-4 staff who may need to work from all sides of the trolley. Facilities for recording patient data and storage of dressings either on the dressings trolley or elsewhere and disposal of soiled dressings should be provided, as should facilities for clinical handwashing

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Treatment Room

general

Users:
Up to 4 staff and patient (with or without escort), patient may be ambulant, semi-ambulant or in a wheelchair.



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1. An emergency call system for the staff and a nurse call system for the patient should be provided.

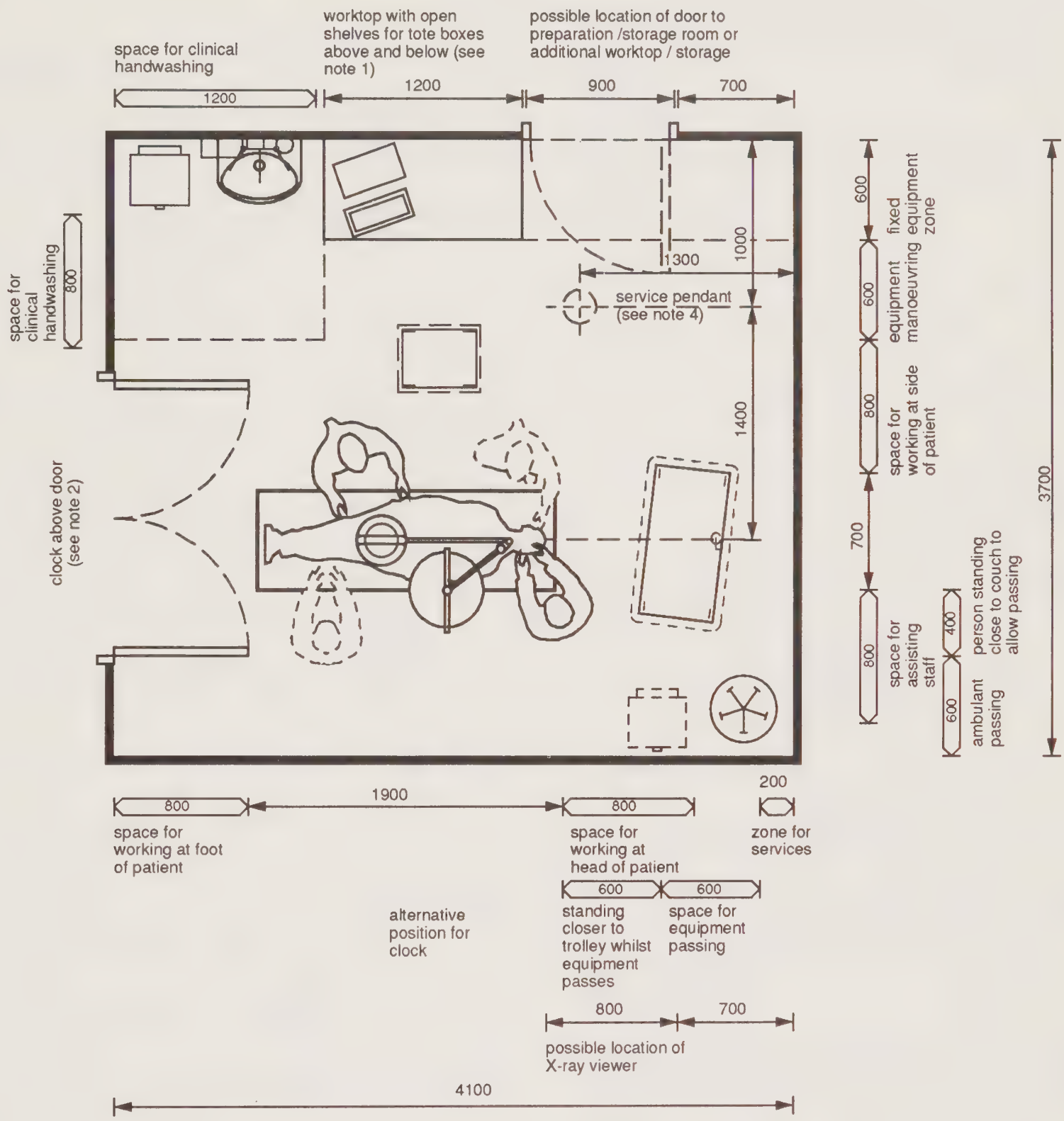
Activities:
Facilities for medical and nursing staff to perform procedures requiring a clinical environment (i.e. minor operative procedure). Procedures will be performed by 1-4 staff who may need to work from all sides of the trolley. Facilities for recording patient data and storage of dressings either on the dressings trolley or elsewhere and disposal of soiled dressings should be provided, as should facilities for clinical handwashing

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Treatment Room

major

Users:
Up to 4 staff and patient (with or without escort), patient may be ambulant, semi-ambulant or in a wheelchair.



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1. Open shelving with tote boxes are the most appropriate for storage of medical supplies for the treatment room. Shelves should not be higher than 1700. If shelves are provided over a 900 high worktop, the worktop should not be deeper than 600, the shelf depth 300 and the max. shelf height 1650.

2. A clock with second hand sweep is required for monitoring the operating procedures.

3. The trolley should be adjustable in height to facilitate patient transfer, especially from a wheelchair, as well as being adjustable for the requirements of the different staff and treatments.

4. Service pendants are a project option.

5. Patient notes could be made on a writing flap or entered on to a computer which should be on a 800 high worktop to facilitate use whilst standing.

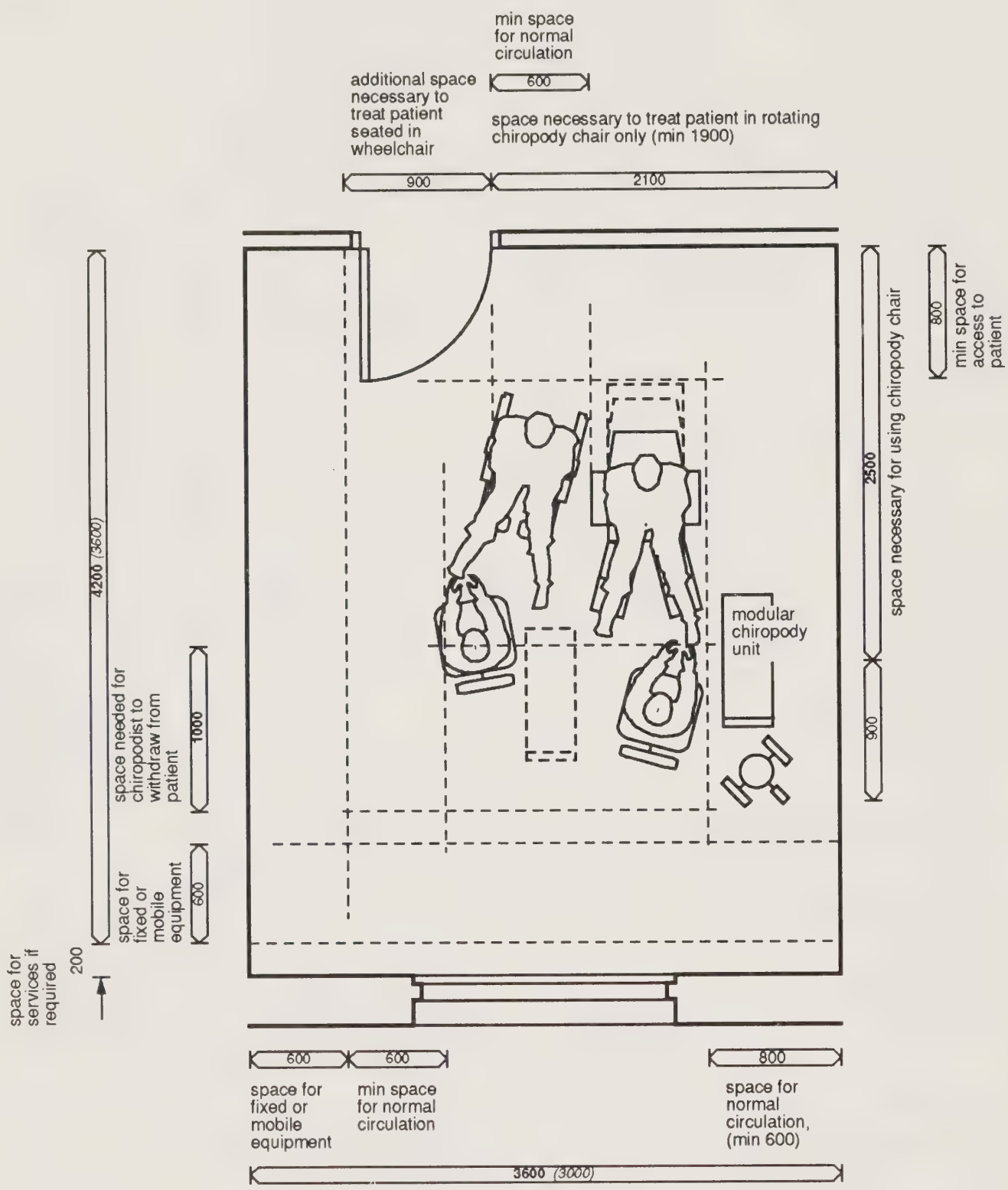
6. An emergency call system for the staff and a nurse call system for the patient should be provided.

Activities:
Facilities for staff to carry out chiropody. Patient may be ambulant, semi-ambulant or in a wheelchair.

NHSEstates Ergonomic Data Bank
Component-user data sheet, not to scale

Chiropody

Users:
Up to 2 staff and patient (with or without escort).



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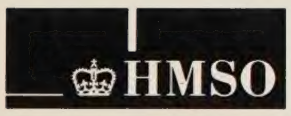

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